

GENERAL DYNAMICS
Ordnance and Tactical Systems
Munition Services

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AWMD/WRAP-MIRP

April 4, 2013

Don Dicks
Hazardous Waste Program
Missouri Dept. of Natural Resources
P. O. Box 176
Jefferson City, MO 65102-0176

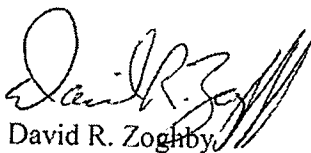
Re: EBV Explosives Environmental Company Permit No. MOD985798164
MDNR Letter sent May 24, 2011 on Building #3 Release Report

Dear Don:

EBV Explosives Environmental Company dba General Dynamics Ordnance and Tactical Systems Munition Services (GD-OTS MS) has complete the additional sampling requested in the area of the spill of ash from the air pollution control system at Building #3. Attached is the Sampling Report for your review.

If you have any questions regarding this modification, please contact me at (610) 298-3085.

Regards,



David R. Zoghby
Senior Director of Marketing
& Commercial Contracts

cc. Tim O'Brien, MDNR HWP
Ken Herstowski, EPA Region 7

RCRA



523736

**Release Report #2
Building #3 Spill
On 9/24/2010**

EBV Explosives Environmental Company

dba, General Dynamics-OTS Munition Services

Submitted: April 4, 2013

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**Release Report #2
Building #3 Spill
On 9/24/2010**

EBV Explosives Environmental Company dba General Dynamics Ordnance and Tactical Systems Munition Services (GD-OTS MS) had a spill involving APCS Ash from Building #3 on 9/24/2010. The following is the timeline of events on the reporting, clean-up and sampling of the spill area.

Timeline of Events

9/28/2010 - The spill was found at about 4 pm.
9/29/2010 - MDNR was notified verbally in the morning and by email.
9/30/2010 - Spill was cleaned up on and placed into three roll-off containers.
10/25/2010 - Sampling Work Plan submitted to MDNR
11/22/2010 - GD-OTS MS collected the required samples on and submitted for analysis.
12/8/2010 - Analytical results were received.
1/7/2011 - Release Report was submitted to MDNR.
5/24/2011 - MDNR notified GD-OTS MS that additional sampling was required.
8/12/2011 - GD-OTS MS submitted the required sampling plan.
7/25/2012 - MDNR approved the sampling plan.
8/17/2012 - GD-OTS MS collected the required samples on and submitted for analysis.
9/20/2012 - Analytical results were received.
9/27/2012 - A copy of the sample results were submitted to MDNR.

The following is the Release Report on the additional sampling done on 8/17/2012.

Sample Collection

The samples of the soil from the cleaned spill area were collected based on the procedures and requirements detailed in the approved Sampling Plan. The soil samples were collected on August 17, 2012 between 8:00 am and 11:00 am. The soil at the sample location was loosened in a 6" to 8" circle about 6" deep with a spade. This soil was thoroughly mixed with the spade and a representative grab sample was taken with a scoop and put into a clean sample container received from the lab where the samples were being sent. The container was sealed and marked and recorded on the Chain of Custody log. Then the equipment was wiped clean and moved to the next sample location. This process was repeated at each sample location marked on the drawing "Building 3 Release Location" in Appendix #1. The Analytical Results from Pace Labs and Chain of Custody logs are found in Appendix #2.

Summary of the Analytical Results

Building #3 Ash Spill Sampling August 2012

Samples No.	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Mercury	Hex Chrome	Chloride	D/F TEQ	Perchlorate
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ng/kg	mg/kg dry wt basis
31/32A	4.0	48.6	ND	15.9	11.3	ND	ND	ND	123	13	0.680
33/34	4.2	57.0	ND	14.7	13.1	ND	ND	ND	127	2.4	0.355
35/36	3.9	54.5	ND	11.3	14.2	ND	ND	ND	121	5.3	0.417
41/42	2.9	47.0	1.2	12.3	16.1	ND	ND	ND	184	17	0.566
43/33	2.2	67.2	0.7	8.6	19.7	ND	0.040	ND	161	3	1.150
49/50	2.4	73.2	0.6	7.0	20.2	ND	0.040	ND	ND	0.93	0.115
51/52	3.6	67.4	0.8	35.1	17.4	ND	ND	ND	145	16	2.510
53/54	2.9	63.2	1.9	37.0	28.6	ND	ND	ND	138	16	3.250
55/56	5.0	51.7	ND	13.7	12.9	ND	0.039	ND	131	14	1.800
57/58	5.0	57.3	ND	13.9	14.6	ND	ND	ND	124	12	0.503
Average	3.6	58.7	1.03*	17.0	16.8		0.040*		139*	9.96	1.135
EPA Regional Screening Level (RSL) Summary Table November 2012											
Resident Soil	.039	15,000	7.0	120,000	400	390	10/23	0.29	7,500	94	55
MRBCA Tech Guidance							Elemental / Salts				
B-1 Lowest Target Level	3.89										

Note: * Non-detected (ND) not included in calculation.

Conclusion

All results are below EPA Regional Screening Levels with the exception of Arsenic which is below MRBCA B-1 Lowest Target Level. Arsenic is naturally occurring in the soil of the region.

ANALYTICAL DATA QA/QC SUMMARY

The QA/QC review was done to evaluate all analytical results be in accordance with precision, accuracy and representativeness.

QA/QC SUMMARY

All the laboratory generated data was valid and usable for the sampling plan. The exceptions that were noted are the result of either matrix interferences or were accepted based on laboratory control sample recovery. These minor exceptions did not result in disqualifying any data.

Accuracy

A program of sample spiking was used to evaluate laboratory accuracy. This program included analysis of the matrix spike (MS) / matrix spike duplicate (MSD) samples, laboratory control samples (LCS) samples, and method blanks.

Accuracy is expressed as the percent recovery of an analyte that has been added (spiked) to either a laboratory or environmental sample in a known concentration before extraction and subsequent analysis.

Dioxins/Furans - All Method Blanks, LCS and MS/MSD samples were within control limits.

Metals - All Method Blanks and LCS samples were within control limits. Pace reported that the MS/MSD percent recovery exceeded the QC limits of but were accepted based on LCS recovery.

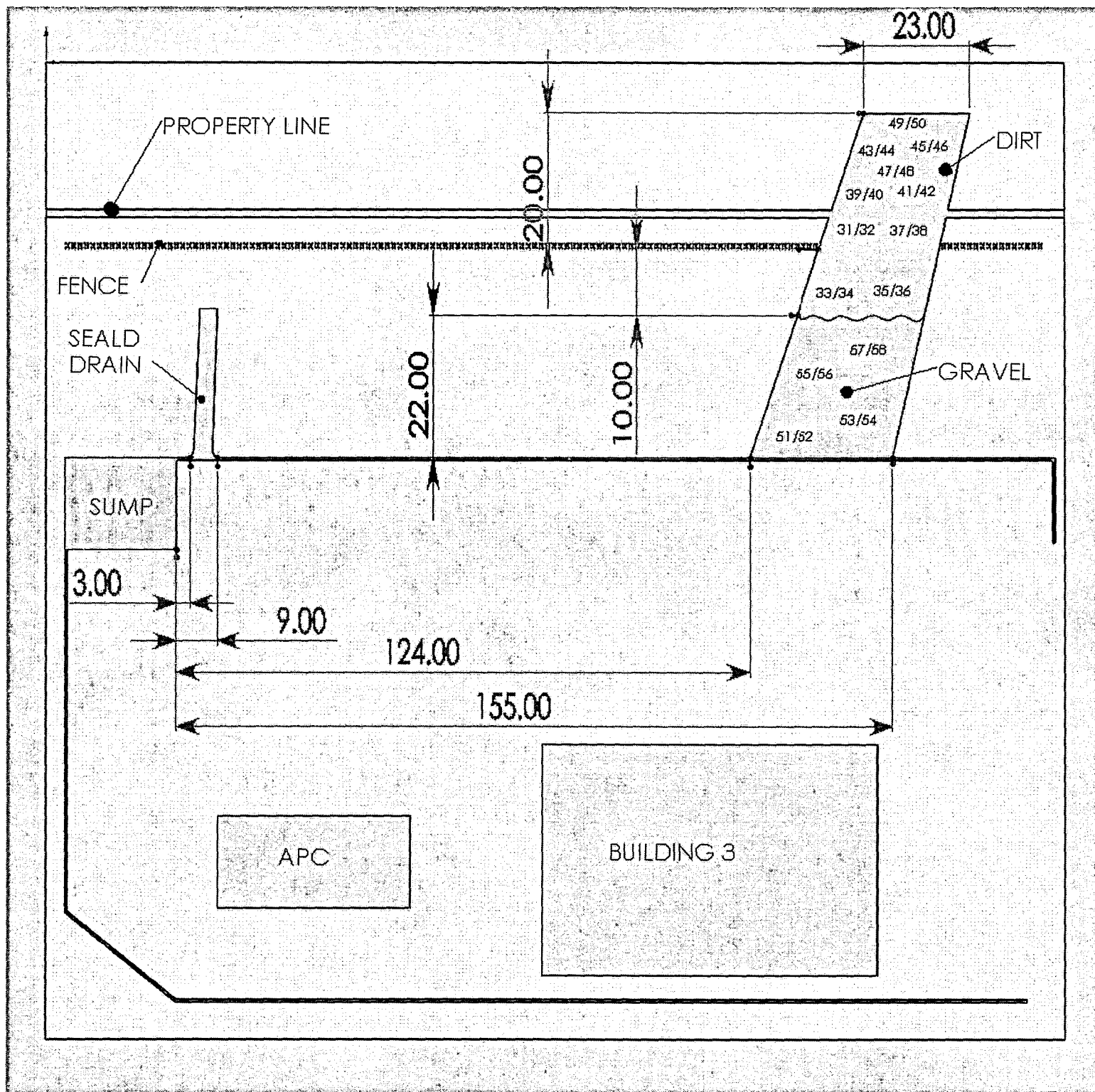
Mercury - All Method Blanks and LCS samples were within control limits. Pace reported that the MS/MSD percent recovery exceeded the QC limits of but were accepted based on LCS recovery.

Hexavalent Chromium - All Method Blanks, LCS and MS/MSD samples were within control limits.

Chloride - All Method Blanks, LCS and MS/MSD samples were within control limits.

Perchlorate - All Method Blanks, LCS and MS/MSD samples were within control limits.

Appendix #1 – Sample Locations



Appendix #2 – Analytical Results From Pace Labs

September 20, 2012

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AWMD/WRAP-MIRP

Robert Guy
General Dynamics - OTS - Munition Services
4174 County Rd 180
Carthage, MO 64836

RE: Project: REL1-11-11 B-3
Pace Project No.: 60127664

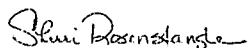
Dear Robert Guy:

Enclosed are the analytical results for sample(s) received by the laboratory on August 24, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Sherri Rosenstangle

sherri.rosenstangle@pacelabs.com
Project Manager

Enclosures

cc: Dave Zoghby, General Dynamics - OTS - Munit



REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: REL1-11-11 B-3
Pace Project No.: 60127664

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace

Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042

Louisiana/NELAC Certification #: 04076
Ohio VAP Certification #: CL0065
Pennsylvania Certification #: 68-04991
West Virginia Certification #: 330

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 12-019-0
Illinois Certification #: 002885
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-12-3
Utah Certification #: KS000212012-2

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SAMPLE SUMMARY

Project: REL1-11-11 B-3
Pace Project No.: 60127664

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60127664001	31/32A	Solid	08/17/12 00:00	08/24/12 08:30
60127664002	33/34A	Solid	08/17/12 00:00	08/24/12 08:30
60127664003	35/36A	Solid	08/17/12 00:00	08/24/12 08:30
60127664004	41/42A	Solid	08/17/12 00:00	08/24/12 08:30
60127664005	43/44A	Solid	08/17/12 00:00	08/24/12 08:30
60127664006	49/50A	Solid	08/17/12 00:00	08/24/12 08:30
60127664007	51/52A	Solid	08/17/12 00:00	08/24/12 08:30
60127664008	53/54A	Solid	08/17/12 00:00	08/24/12 08:30
60127664009	55/56A	Solid	08/17/12 00:00	08/24/12 08:30
60127664010	57/58A	Solid	08/17/12 00:00	08/24/12 08:30

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SAMPLE ANALYTE COUNT

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60127664001	31/32A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664002	33/34A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	JDL	1	PASI-M
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664003	35/36A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	JDL	1	PASI-M
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664004	41/42A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664005	43/44A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664006	49/50A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664007	51/52A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
60127664008	53/54A	EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K

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SAMPLE ANALYTE COUNT

Project: REL1-11-11 B-3
Pace Project No.: 60127664

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60127664009	55/56A	ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
		EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
60127664010	57/58A	EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K
		EPA 6010	JGP	6	PASI-K
		EPA 7471	TJT	1	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 7196A	DAE	1	PASI-I
		EPA 9056	OL	1	PASI-K

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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 31/32A Lab ID: 60127664001 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	4.0 mg/kg		0.91	1	08/28/12 17:35	08/30/12 17:48	7440-38-2	M1
Barium	48.6 mg/kg		0.91	1	08/28/12 17:35	08/30/12 17:48	7440-39-3	M1
Cadmium	ND mg/kg		0.45	1	08/28/12 17:35	08/30/12 17:48	7440-43-9	M1
Chromium	15.9 mg/kg		0.45	1	08/28/12 17:35	08/30/12 17:48	7440-47-3	M1
Lead	11.3 mg/kg		0.45	1	08/28/12 17:35	08/30/12 17:48	7439-92-1	M1
Selenium	ND mg/kg		1.4	1	08/28/12 17:35	08/30/12 17:48	7782-49-2	M1
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND mg/kg		0.038	1	09/07/12 16:45	09/08/12 12:52	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	4.8 %		0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent		Analytical Method: EPA 7196A						
Chromium, Hexavalent	ND mg/kg		2.0	1	09/13/12 12:10	09/14/12 09:40	18540-29-9	
9056 IC Anions		Analytical Method: EPA 9056 Preparation Method: EPA 9056						
Chloride	123 mg/kg		100	10	09/05/12 14:00	09/06/12 09:55	16887-00-6	

Date: 09/20/2012 04:54 PM

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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 33/34A Lab ID: 60127664002 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	4.2 mg/kg		0.93	1	08/28/12 17:35	08/30/12 17:58	7440-38-2	
Barium	57.0 mg/kg		0.93	1	08/28/12 17:35	08/30/12 17:58	7440-39-3	
Cadmium	ND mg/kg		0.46	1	08/28/12 17:35	08/30/12 17:58	7440-43-9	
Chromium	14.7 mg/kg		0.46	1	08/28/12 17:35	08/30/12 17:58	7440-47-3	
Lead	13.1 mg/kg		0.46	1	08/28/12 17:35	08/30/12 17:58	7439-92-1	
Selenium	ND mg/kg		1.4	1	08/28/12 17:35	08/30/12 17:58	7782-49-2	
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND mg/kg		0.039	1	09/07/12 16:45	09/08/12 12:54	7439-97-6	
Dry Weight		Analytical Method: ASTM D2974						
Percent Moisture	0.94 %		0.10	1		08/31/12 00:00		
7196 Chromium, Hexavalent		Analytical Method: EPA 7196A						
Chromium, Hexavalent	.ND mg/kg		2.0	1	09/13/12 12:10	09/14/12 09:40	18540-29-9	
9056 IC Anions		Analytical Method: EPA 9056 Preparation Method: EPA 9056						
Chloride	127 mg/kg		100	10	09/05/12 14:00	09/06/12 10:47	16887-00-6	

Date: 09/20/2012 04:54 PM

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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 35/36A Lab ID: 60127664003 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	3.9 mg/kg		0.93	1	08/28/12 17:35	08/30/12 18:08	7440-38-2	
Barium	54.5 mg/kg		0.93	1	08/28/12 17:35	08/30/12 18:08	7440-39-3	
Cadmium	ND mg/kg		0.46	1	08/28/12 17:35	08/30/12 18:08	7440-43-9	
Chromium	11.3 mg/kg		0.46	1	08/28/12 17:35	08/30/12 18:08	7440-47-3	
Lead	14.2 mg/kg		0.46	1	08/28/12 17:35	08/30/12 18:08	7439-92-1	
Selenium	ND mg/kg		1.4	1	08/28/12 17:35	08/30/12 18:08	7782-49-2	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND mg/kg		0.047	1	09/07/12 16:45	09/08/12 12:56	7439-97-6	
Dry Weight Analytical Method: ASTM D2974								
Percent Moisture	1.4 %		0.10	1		08/31/12 00:00		
7196 Chromium, Hexavalent Analytical Method: EPA 7196A								
Chromium, Hexavalent	ND mg/kg		4.0	2	09/13/12 12:10	09/14/12 09:40	18540-29-9	D3
9056 IC Anions Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Chloride	121 mg/kg		100	10	09/05/12 14:00	09/06/12 11:57	16887-00-6	

Date: 09/20/2012 04:54 PM

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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 41/42A Lab ID: 60127664004 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	2.9 mg/kg		0.91	1	08/28/12 17:35	08/30/12 18:12	7440-38-2	
Barium	47.0 mg/kg		0.91	1	08/28/12 17:35	08/30/12 18:12	7440-39-3	
Cadmium	1.2 mg/kg		0.45	1	08/28/12 17:35	08/30/12 18:12	7440-43-9	
Chromium	12.3 mg/kg		0.45	1	08/28/12 17:35	08/30/12 18:12	7440-47-3	
Lead	16.1 mg/kg		0.45	1	08/28/12 17:35	08/30/12 18:12	7439-92-1	
Selenium	ND mg/kg		1.4	1	08/28/12 17:35	08/30/12 18:12	7782-49-2	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND mg/kg		0.047	1	09/07/12 16:45	09/08/12 12:59	7439-97-6	
Percent Moisture Analytical Method: ASTM D2974								
Percent Moisture	5.0 %		0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent Analytical Method: EPA 7196A								
Chromium, Hexavalent	ND mg/kg		4.0	2	09/13/12 12:10	09/14/12 09:40	18540-29-9	D3
9056 IC Anions Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Chloride	184 mg/kg		100	10	09/05/12 14:00	09/06/12 04:17	16887-00-6	

Date: 09/20/2012 04:54 PM

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 43/44A Lab ID: 60127664005 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	2.2	mg/kg	0.94	1	08/28/12 17:35	08/30/12 18:15	7440-38-2	
Barium	67.2	mg/kg	0.94	1	08/28/12 17:35	08/30/12 18:15	7440-39-3	
Cadmium	0.68	mg/kg	0.47	1	08/28/12 17:35	08/30/12 18:15	7440-43-9	
Chromium	8.6	mg/kg	0.47	1	08/28/12 17:35	08/30/12 18:15	7440-47-3	
Lead	19.7	mg/kg	0.47	1	08/28/12 17:35	08/30/12 18:15	7439-92-1	
Selenium	ND	mg/kg	1.4	1	08/28/12 17:35	08/30/12 18:15	7782-49-2	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.040	mg/kg	0.039	1	09/07/12 16:45	09/08/12 13:01	7439-97-6	
Percent Moisture Analytical Method: ASTM D2974								
Percent Moisture	2.7	%	0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent Analytical Method: EPA 7196A								
Chromium, Hexavalent	ND	mg/kg	10.0	5	09/13/12 12:10	09/14/12 09:40	18540-29-9	D3
9056 IC Anions Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Chloride	161	mg/kg	100	10	09/05/12 14:00	09/06/12 04:35	16887-00-6	

Date: 09/20/2012 04:54 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 49/50A Lab ID: 60127664006 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	2.4	mg/kg	0.96	1	08/28/12 17:35	08/30/12 18:19	7440-38-2	
Barium	73.2	mg/kg	0.96	1	08/28/12 17:35	08/30/12 18:19	7440-39-3	
Cadmium	0.57	mg/kg	0.48	1	08/28/12 17:35	08/30/12 18:19	7440-43-9	
Chromium	7.0	mg/kg	0.48	1	08/28/12 17:35	08/30/12 18:19	7440-47-3	
Lead	20.2	mg/kg	0.48	1	08/28/12 17:35	08/30/12 18:19	7439-92-1	
Selenium	ND	mg/kg	1.4	1	08/28/12 17:35	08/30/12 18:19	7782-49-2	
7471 Mercury								
Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.040	mg/kg	0.038	1	09/07/12 16:45	09/08/12 13:03	7439-97-6	
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	4.4	%	0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent								
Analytical Method: EPA 7196A								
Chromium, Hexavalent	ND	mg/kg	2.0	1	09/13/12 12:10	09/14/12 09:40	18540-29-9	
9056 IC Anions								
Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Chloride	ND	mg/kg	100	10	09/05/12 14:00	09/06/12 04:52	16887-00-6	

ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 51/52A Lab ID: 60127664007 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	3.6 mg/kg		0.93	1	08/28/12 17:35	08/30/12 18:22	7440-38-2	
Barium	67.4 mg/kg		0.93	1	08/28/12 17:35	08/30/12 18:22	7440-39-3	
Cadmium	0.81 mg/kg		0.46	1	08/28/12 17:35	08/30/12 18:22	7440-43-9	
Chromium	35.1 mg/kg		0.46	1	08/28/12 17:35	08/30/12 18:22	7440-47-3	
Lead	17.4 mg/kg		0.46	1	08/28/12 17:35	08/30/12 18:22	7439-92-1	
Selenium	ND mg/kg		1.4	1	08/28/12 17:35	08/30/12 18:22	7782-49-2	
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND mg/kg		0.038	1	09/07/12 16:45	09/08/12 13:05	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	3.4 %		0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent		Analytical Method: EPA 7196A						
Chromium, Hexavalent	ND mg/kg		2.0	1	09/13/12 12:10	09/14/12 09:40	18540-29-9	
9056 IC Anions		Analytical Method: EPA 9056 Preparation Method: EPA 9056						
Chloride	145 mg/kg		100	10	09/05/12 14:00	09/06/12 05:09	16887-00-6	



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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 53/54A Lab ID: 60127664008 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	2.9 mg/kg		0.96	1	08/28/12 17:35	08/30/12 18:25	7440-38-2	
Barium	63.2 mg/kg		0.96	1	08/28/12 17:35	08/30/12 18:25	7440-39-3	
Cadmium	1.9 mg/kg		0.48	1	08/28/12 17:35	08/30/12 18:25	7440-43-9	
Chromium	37.0 mg/kg		0.48	1	08/28/12 17:35	08/30/12 18:25	7440-47-3	
Lead	28.6 mg/kg		0.48	1	08/28/12 17:35	08/30/12 18:25	7439-92-1	
Selenium	ND mg/kg		1.4	1	08/28/12 17:35	08/30/12 18:25	7782-49-2	
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND mg/kg		0.044	1	09/07/12 16:45	09/08/12 13:07	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	2.3 %		0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent		Analytical Method: EPA 7196A						
Chromium, Hexavalent	ND mg/kg		4.0	2	09/13/12 12:10	09/14/12 09:40	18540-29-9	D3
9056 IC Anions		Analytical Method: EPA 9056 Preparation Method: EPA 9056						
Chloride	138 mg/kg		100	10	09/05/12 14:00	09/06/12 05:27	16887-00-6	

Date: 09/20/2012 04:54 PM

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ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 55/56A Lab ID: 60127664009 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	5.0	mg/kg	0.86	1	08/28/12 17:35	08/30/12 18:29	7440-38-2	
Barium	51.7	mg/kg	0.86	1	08/28/12 17:35	08/30/12 18:29	7440-39-3	
Cadmium	ND	mg/kg	0.43	1	08/28/12 17:35	08/30/12 18:29	7440-43-9	
Chromium	13.7	mg/kg	0.43	1	08/28/12 17:35	08/30/12 18:29	7440-47-3	
Lead	12.9	mg/kg	0.43	1	08/28/12 17:35	08/30/12 18:29	7439-92-1	
Selenium	ND	mg/kg	1.3	1	08/28/12 17:35	08/30/12 18:29	7782-49-2	
7471 Mercury								
Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.039	mg/kg	0.038	1	09/07/12 16:45	09/08/12 13:10	7439-97-6	
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	3.9	%	0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent								
Analytical Method: EPA 7196A								
Chromium, Hexavalent	ND	mg/kg	2.0	1	09/13/12 12:10	09/14/12 09:40	18540-29-9	
9056 IC Anions								
Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Chloride	131	mg/kg	100	10	09/05/12 14:00	09/06/12 05:44	16887-00-6	

ANALYTICAL RESULTS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

Sample: 57/58A Lab ID: 60127664010 Collected: 08/17/12 00:00 Received: 08/24/12 08:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	5.0	mg/kg	0.98	1	08/28/12 17:35	08/30/12 18:32	7440-38-2	
Barium	57.3	mg/kg	0.98	1	08/28/12 17:35	08/30/12 18:32	7440-39-3	
Cadmium	ND	mg/kg	0.49	1	08/28/12 17:35	08/30/12 18:32	7440-43-9	
Chromium	13.9	mg/kg	0.49	1	08/28/12 17:35	08/30/12 18:32	7440-47-3	
Lead	14.6	mg/kg	0.49	1	08/28/12 17:35	08/30/12 18:32	7439-92-1	
Selenium	ND	mg/kg	1.5	1	08/28/12 17:35	08/30/12 18:32	7782-49-2	
7471 Mercury								
Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.038	1	09/07/12 16:45	09/08/12 13:16	7439-97-6	
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	2.1	%	0.50	1		09/06/12 00:00		
7196 Chromium, Hexavalent								
Analytical Method: EPA 7196A								
Chromium, Hexavalent	ND	mg/kg	2.0	1	09/13/12 12:10	09/14/12 09:40	18540-29-9	
9056 IC Anions								
Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Chloride	124	mg/kg	100	10	09/05/12 14:00	09/06/12 06:02	16887-00-6	

QUALITY CONTROL DATA

Project: REL1-11-11 B-3

Pace Project No.: 60127664

QC Batch: MERP/6586 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

METHOD BLANK: 1055530 Matrix: Solid
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.050	09/08/12 12:23	

LABORATORY CONTROL SAMPLE: 1055531

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.57	114	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055532 1055533

Parameter	Units	60127813011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Mercury	mg/kg	0.51	.39	.39	0.98	1.1	118	151	75-125	12 20	M1

QUALITY CONTROL DATA

Project: REL1-11-11 B-3
Pace Project No.: 60127664

QC Batch: MPRP/19286 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

METHOD BLANK: 1051590 Matrix: Solid
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	08/30/12 17:28	
Barium	mg/kg	ND	1.0	08/30/12 17:28	
Cadmium	mg/kg	ND	0.50	08/30/12 17:28	
Chromium	mg/kg	ND	0.50	08/30/12 17:28	
Lead	mg/kg	ND	0.50	08/30/12 17:28	
Selenium	mg/kg	ND	1.5	08/30/12 17:28	

LABORATORY CONTROL SAMPLE: 1051591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	47.8	96	80-120	
Barium	mg/kg	50	48.2	96	80-120	
Cadmium	mg/kg	50	48.1	96	80-120	
Chromium	mg/kg	50	46.9	94	80-120	
Lead	mg/kg	50	49.3	99	80-120	
Selenium	mg/kg	50	47.3	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1051592 1051593

Parameter	Units	60127664001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Arsenic	mg/kg	4.0	49.6	47.8	38.8	34.3	70	63	75-125	12	20 M1
Barium	mg/kg	48.6	49.6	47.8	95.4	82.4	90	66	75-125	15	20 M1
Cadmium	mg/kg	ND	49.6	47.8	36.9	32.5	74	67	75-125	13	20 M1
Chromium	mg/kg	15.9	49.6	47.8	50.8	45.2	69	60	75-125	12	20 M1
Lead	mg/kg	11.3	49.6	47.8	49.6	42.6	76	65	75-125	15	20 M1
Selenium	mg/kg	ND	49.6	47.8	34.4	30.5	68	62	75-125	12	20 M1



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QUALITY CONTROL DATA

Project: REL1-11-11 B-3

Pace Project No.: 60127664

QC Batch: MPRP/34956

Analysis Method: ASTM D2974

QC Batch Method: ASTM D2974

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 60127664002, 60127664003

SAMPLE DUPLICATE: 1278857

Parameter	Units	10203942001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	89.3	89.3	.05	30	

SAMPLE DUPLICATE: 1278858

Parameter	Units	10204054001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.2	18.8	2	30	



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QUALITY CONTROL DATA

Project: REL1-11-11 B-3
Pace Project No.: 60127664

QC Batch: PMST/7673 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60127664001, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009,
60127664010

METHOD BLANK: 1055547 Matrix: Solid
Associated Lab Samples: 60127664001, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009,
60127664010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	09/06/12 00:00	

SAMPLE DUPLICATE: 1055548

Parameter	Units	60127847004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	83.4	83.7	0	20	

QUALITY CONTROL DATA

Project: REL1-11-11 B-3
Pace Project No.: 60127664

QC Batch: WET/10056 Analysis Method: EPA 7196A
QC Batch Method: EPA 7196A Analysis Description: 7196 Chromium, Hexavalent
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

METHOD BLANK: 797212 Matrix: Solid
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	2.0	09/14/12 09:40	

LABORATORY CONTROL SAMPLE: 797213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	1020	830	81	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 797214 797215

Parameter	Units	60127664001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Chromium, Hexavalent	mg/kg	ND	1120	1050	868	842	77	80	75-125	3	20

SAMPLE DUPLICATE: 797216

Parameter	Units	60127609006 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND		20	

QUALITY CONTROL DATA

Project: REL1-11-11 B-3
Pace Project No.: 60127664

QC Batch: WETA/21519 Analysis Method: EPA 9056
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions
Associated Lab Samples: 60127664001, 60127664002, 60127664003, 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

METHOD BLANK: 1055038 Matrix: Solid
Associated Lab Samples: 60127664004, 60127664005, 60127664006, 60127664007, 60127664008, 60127664009, 60127664010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	09/05/12 15:31	

METHOD BLANK: 1055583 Matrix: Solid
Associated Lab Samples: 60127664001, 60127664002, 60127664003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	09/06/12 09:20	

LABORATORY CONTROL SAMPLE: 1055039

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	486	97	80-120	

LABORATORY CONTROL SAMPLE: 1055584

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	485	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055040 1055041

Parameter	Units	60127664001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	123	525	525	631	618	96	93	80-120	2	15	

SAMPLE DUPLICATE: 1055042

Parameter	Units	60127664002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/kg	127	138	7	15	

QUALIFIERS

Project: REL1-11-11 B-3

Pace Project No.: 60127664

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: REL1-11-11 B-3
Pace Project No.: 60127664

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60127664001	31/32A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664002	33/34A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664003	35/36A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664004	41/42A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664005	43/44A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664006	49/50A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664007	51/52A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664008	53/54A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664009	55/56A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664010	57/58A	EPA 3050	MPRP/19286	EPA 6010	ICP/15956
60127664001	31/32A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664002	33/34A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664003	35/36A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664004	41/42A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664005	43/44A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664006	49/50A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664007	51/52A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664008	53/54A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664009	55/56A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664010	57/58A	EPA 7471	MERP/6586	EPA 7471	MERC/6551
60127664002	33/34A	ASTM D2974	MPRP/34956		
60127664003	35/36A	ASTM D2974	MPRP/34956		
60127664001	31/32A	ASTM D2974	PMST/7673		
60127664004	41/42A	ASTM D2974	PMST/7673		
60127664005	43/44A	ASTM D2974	PMST/7673		
60127664006	49/50A	ASTM D2974	PMST/7673		
60127664007	51/52A	ASTM D2974	PMST/7673		
60127664008	53/54A	ASTM D2974	PMST/7673		
60127664009	55/56A	ASTM D2974	PMST/7673		
60127664010	57/58A	ASTM D2974	PMST/7673		
60127664001	31/32A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664002	33/34A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664003	35/36A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664004	41/42A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664005	43/44A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664006	49/50A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664007	51/52A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664008	53/54A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664009	55/56A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664010	57/58A	EPA 7196A	WET/10056	EPA 7196A	WET/10071
60127664001	31/32A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664002	33/34A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664003	35/36A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664004	41/42A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664005	43/44A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664006	49/50A	EPA 9056	WETA/21519	EPA 9056	WETA/21520

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: REL1-11-11 B-3
Pace Project No.: 60127664

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60127664007	51/52A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664008	53/54A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664009	55/56A	EPA 9056	WETA/21519	EPA 9056	WETA/21520
60127664010	57/58A	EPA 9056	WETA/21519	EPA 9056	WETA/21520



Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Sherri Rosenstangle
PASI Kansas
9608 Loiret Blvd.
Lenexa KS 66219

**REPORT OF
LABORATORY
ANALYSIS FOR
PCDD/PCDF**

Report Prepared Date:

September 17, 2012

Report No.....10203966_1613B

Report Information:

Pace Project #: 10203966
Sample Receipt Date: 08/30/2012
Client Project #: 60127664
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

September 17, 2012

Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on ten samples submitted by a representative of Pace Analytical Services, Inc. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. Sample preparation utilized microwave assisted extraction followed by the method-specified cleanup procedures. The reporting limits were set to correspond to the lowest calibration points and were adjusted for sample amount.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 27-92%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits.

A laboratory spike sample was also prepared with the sample batch using clean sand that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 85-108%, indicating a high degree of accuracy for these determinations. Matrix spikes were prepared with the sample batch using sample material from a separate project; results from these analyses will be provided upon request.

REPORT OF LABORATORY ANALYSIS

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Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	
Arizona	AZ0014	Nevada	MN_00064_200
Arkansas	88-0680	New Jersey (NE	MN002
California	01155CA	New Mexico	MN00064
Colorado	MN00064	New York (NEL	11647
Connecticut	PH-0256	North Carolina	27700
EPA Region 5	WD-15J	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP	E87605	Ohio VAP	CL101 9507
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

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Appendix A

Sample Management

Chain of Custody


10203966


**Workorder: 60127664**

Workorder Name:REL1-11-11 B-3

Owner Received Date: 8/24/2012 Results Requested By: 9/17/2012

[illegible]

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt	Client Name: <u>Pace KS</u>	Project #: WO# : 10203966
	Courier: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Other:	 10203966
Tracking Number: <u>8356 4231 8126</u>		

Custody Seal on Cooler/Box Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Optional: Proj. Due Date: Proj. Name:
Packing Material: <input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other:	Temp Blank? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Thermometer Used: <input type="checkbox"/> B88A912167504 <input checked="" type="checkbox"/> 80512447	Type of Ice: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None	<input type="checkbox"/> Samples on ice, cooling process has begun
Cooler Temperature: <u>20</u>	Biological Tissue Frozen? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date and Initials of Person Examining Contents: <u>82812 TN</u>
Temp should be above freezing to 6°C		

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. received 3 containers for items 1, 2 and 3 and one container for 10. did not receive rest of sample
-Includes Date/Time/ID/Analysis Matrix: <u>SL</u>		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Norman Hoffa

Digitally signed by Norman Hoffa
DN: cn=Norman Hoffa, o=Pace Analytical Services Inc.
ou=Project Manager, email=norm.hoffa@pacelabs.com,
c=US
Date: 2012.08.31 12:01:42 -0400

Project Manager Review:

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

1126

Chain of Custody

Report No. 10203966_1613B



Workorder: 60127664

Workorder Name: REL1-11-11 B-3

Results Requested 9/17/2012

Sherri Rosenstangle
Pace Analytical Kansas

P.O. SUB-6419

9608 Loiret Blvd.


Lenexa, KS 66219

Phone (913)599-5665

Email: sherri.rosenstangle@pacelabs.com

Received Containers					Perchlorates												LAB USE ONLY	
Item	Sample	Date/Time	Lab ID	Matrix	none													
1	31/32A	8/17/2012 00:00	60127664001	Solid	1													
2	33/34A	8/17/2012 00:00	60127664002	Solid	1													
3	35/36A	8/17/2012 00:00	60127664003	Solid	1													
4	41/42A	8/17/2012 00:00	60127664004	Solid	1													
5	43/44A	8/17/2012 00:00	60127664005	Solid	1													
6	49/50A	8/17/2012 00:00	60127664006	Solid	1													
7	51/52A	8/17/2012 00:00	60127664007	Solid	1													
8	53/54A	8/17/2012 00:00	60127664008	Solid	1													
9	55/56A	8/17/2012 00:00	60127664009	Solid	1													
10	57/58A	8/17/2012 00:00	60127664010	Solid	1													
11																		
12																		
13																		
14																		

Transfers	Released By	Date/Time	Received By	Date/Time	Comments			
	<i>[Signature]</i>	8/27/12 1700	Fred Dy					
	Fred Dy	8/28/12 0926	Christi Parker Ana-Lab	8/28/12 0926				
	<i>[Signature]</i>	8/28/12 1700	<i>[Signature]</i>	8/30/12 0815				
Cooler Temperature on Receipt 0.5°C		Custody Seal Y or N		Received on Ice or N		Samples Intact Y or N		

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-1-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt	Client Name: <u>ANA-LAB</u>	Project #:
	Courier: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Other:	
Tracking Number: <u>7988 4816 5586</u>		

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☐ No Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: Temp Blank? ☒ Yes ☐ No

Thermometer Used: ☒ B88A912167504 ☐ 80512447 Type of Ice: ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.5 Biological Tissue Frozen? ☐ Yes ☐ No Date and Initials of Person Examining Contents: 8-30-12 JH

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	12. <u>only rec'd samples 004, 005, 006</u>
-Includes Date/Time/ID/Analysis Matrix: <u>SL</u>				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____
 Comments/Resolution: _____

Norman Hoffa

Digitally signed by Norman Hoffa
 DN: cn=Norman Hoffa, o=Pace Analytical Services Inc,
 ou=Project Manager,
 email=norm.hoffa@paceanalytical.com, c=US
 Date: 2012.08.31 12:02:02 -0400

Project Manager Review:

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

131


Report No....10203966_1613B



Pace Analytical Indianapolis
7726 Moller Road
Indianapolis, IN 46268
Phone (317)875-5894

535642318115

Mar 1

	Document Name:	Document Revised: 22Aug2012
	Sample Condition Upon Receipt Form	Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** Pace **Project #:**

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Commercial ☐ Pace ☐ Other: _____

Tracking Number: 9869 53009 7810

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Optional:** Proj. Due Date: _____ Proj. Name: _____

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: _____ **Temp Blank?** ☒ Yes ☐ No

Thermometer Used: ☒ 888A912167504 ☐ 80S12447 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.3 **Biological Tissue Frozen?** ☐ Yes ☐ No **Date and Initials of Person Examining Contents:** SL 8/30/12

Temp should be above freezing to 6°C

			Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes Date/Time/ID/Analysis Matrix: <u>SL</u>			
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.	<input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

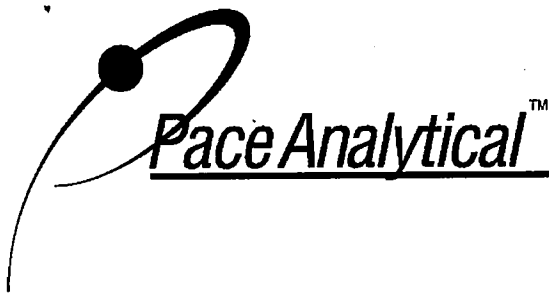
Norman Hoffa

Digitally signed by Norman Hoffa
DN: cn=Norman Hoffa, o=Pace Analytical Services
Inc, ou=Project Manager,
email=norm.hoffa@pacelabs.com, c=US
Date: 2012.08.31 12:02:37 -04'00'

Project Manager Review:

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

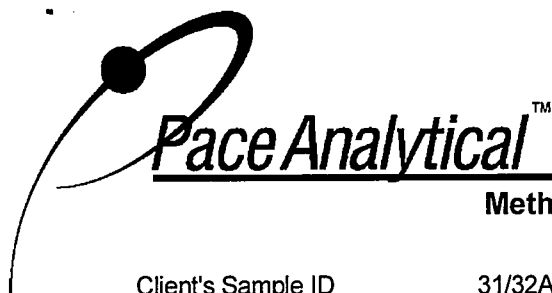
REPORT OF LABORATORY ANALYSIS

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Report No.....10203966_1613B

Report No.....10203966
Pace Pkg., Page 35 of 80
Page 11 of 24

Appendix B

Sample Analysis Summary



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	31/32A		
Lab Sample ID	60127664001		
Filename	U120913A_03		
Injected By	SMT		
Total Amount Extracted	5.30 g	Matrix	Solid
% Moisture	4.8	Dilution	NA
Dry Weight Extracted	5.05 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 11:31

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	2.0	2,3,7,8-TCDF-13C	2.00	49
Total TCDF	ND	—	2.0	2,3,7,8-TCDD-13C	2.00	58
				1,2,3,7,8-PeCDF-13C	2.00	62
2,3,7,8-TCDD	ND	—	2.0	2,3,4,7,8-PeCDF-13C	2.00	66
Total TCDD	ND	—	2.0	1,2,3,7,8-PeCDD-13C	2.00	73
				1,2,3,4,7,8-HxCDF-13C	2.00	52
1,2,3,7,8-PeCDF	ND	—	9.9	1,2,3,6,7,8-HxCDF-13C	2.00	57
2,3,4,7,8-PeCDF	ND	—	9.9	2,3,4,6,7,8-HxCDF-13C	2.00	58
Total PeCDF	ND	—	9.9	1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	56
1,2,3,7,8-PeCDD	ND	—	9.9	1,2,3,6,7,8-HxCDD-13C	2.00	52
Total PeCDD	ND	—	9.9	1,2,3,4,6,7,8-HpCDF-13C	2.00	45
				1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	ND	—	9.9	1,2,3,4,6,7,8-HpCDD-13C	2.00	53
1,2,3,6,7,8-HxCDF	ND	—	9.9	OCDD-13C	4.00	43
2,3,4,6,7,8-HxCDF	ND	—	9.9			
1,2,3,7,8,9-HxCDF	ND	—	9.9	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	9.9	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	9.9	2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	—	9.9			
1,2,3,7,8,9-HxCDD	ND	—	9.9			
Total HxCDD	ND	—	9.9			
1,2,3,4,6,7,8-HpCDF	ND	—	9.9	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	9.9	Equivalence: 13 ng/Kg		
Total HpCDF	ND	—	9.9	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	33	—	9.9			
Total HpCDD	72	—	9.9			
OCDF	ND	—	20.0			
OCDD	13000	—	20.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

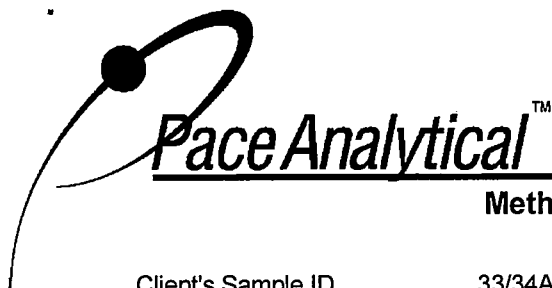
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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	33/34A		
Lab Sample ID	60127664002		
Filename	U120913A_05		
Injected By	SMT		
Total Amount Extracted	10.3 g	Matrix	Solid
% Moisture	0.9	Dilution	NA
Dry Weight Extracted	10.2 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 13:07

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	0.98	2,3,7,8-TCDF-13C	2.00	49
Total TCDF	ND	—	0.98	2,3,7,8-TCDD-13C	2.00	60
				1,2,3,7,8-PeCDF-13C	2.00	63
2,3,7,8-TCDD	ND	—	0.98	2,3,4,7,8-PeCDF-13C	2.00	65
Total TCDD	ND	—	0.98	1,2,3,7,8-PeCDD-13C	2.00	75
				1,2,3,4,7,8-HxCDF-13C	2.00	54
1,2,3,7,8-PeCDF	ND	—	4.90	1,2,3,6,7,8-HxCDF-13C	2.00	59
2,3,4,7,8-PeCDF	ND	—	4.90	2,3,4,6,7,8-HxCDF-13C	2.00	58
Total PeCDF	ND	—	4.90	1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	—	4.90	1,2,3,6,7,8-HxCDD-13C	2.00	54
Total PeCDD	ND	—	4.90	1,2,3,4,6,7,8-HpCDF-13C	2.00	49
				1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	ND	—	4.90	1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	ND	—	4.90	OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	ND	—	4.90			
1,2,3,7,8,9-HxCDF	ND	—	4.90	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	4.90	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	4.90	2,3,7,8-TCDD-37Cl4	0.20	65
1,2,3,6,7,8-HxCDD	ND	—	4.90			
1,2,3,7,8,9-HxCDD	ND	—	4.90			
Total HxCDD	ND	—	4.90			
1,2,3,4,6,7,8-HpCDF	ND	—	4.90	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	4.90	Equivalence: 2.4 ng/Kg		
Total HpCDF	ND	—	4.90	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	9.6	—	4.90			
Total HpCDD	20.0	—	4.90			
OCDF	ND	—	9.80			
OCDD	2300.0	—	9.80			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

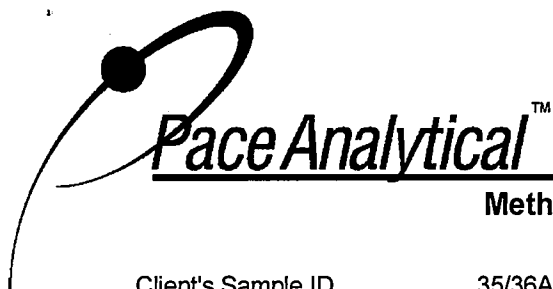
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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	35/36A		
Lab Sample ID	60127664003		
Filename	U120915A_03		
Injected By	BAL		
Total Amount Extracted	5.00 g	Matrix	Solid
% Moisture	1.4	Dilution	NA
Dry Weight Extracted	4.93 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120914B_10	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/15/2012 15:17

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	2.0	2,3,7,8-TCDF-13C	2.00	53
Total TCDF	ND	—	2.0	2,3,7,8-TCDD-13C	2.00	58
				1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	ND	—	2.0	2,3,4,7,8-PeCDF-13C	2.00	59
Total TCDD	ND	—	2.0	1,2,3,7,8-PeCDD-13C	2.00	62
				1,2,3,4,7,8-HxCDF-13C	2.00	60
1,2,3,7,8-PeCDF	ND	—	10.0	1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	ND	—	10.0	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	ND	—	10.0	1,2,3,7,8,9-HxCDF-13C	2.00	69
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	—	10.0	1,2,3,6,7,8-HxCDD-13C	2.00	55
Total PeCDD	ND	—	10.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	51
				1,2,3,4,7,8,9-HpCDF-13C	2.00	63
1,2,3,4,7,8-HxCDF	ND	—	10.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	52
1,2,3,6,7,8-HxCDF	ND	—	10.0	OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	ND	—	10.0			
1,2,3,7,8,9-HxCDF	ND	—	10.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	10.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	10.0	2,3,7,8-TCDD-37Cl4	0.20	65
1,2,3,6,7,8-HxCDD	ND	—	10.0			
1,2,3,7,8,9-HxCDD	ND	—	10.0			
Total HxCDD	ND	—	10.0			
1,2,3,4,6,7,8-HpCDF	ND	—	10.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	10.0	Equivalence: 5.3 ng/Kg		
Total HpCDF	ND	—	10.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	35	—	10.0			
Total HpCDD	74	—	10.0			
OCDF	ND	—	20.0			
OCDD	4900	—	20.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

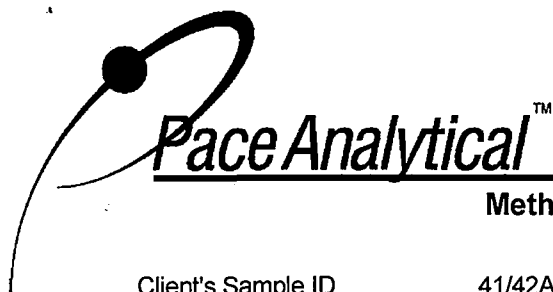
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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	41/42A		
Lab Sample ID	60127664004		
Filename	U120913A_07		
Injected By	SMT		
Total Amount Extracted	10.8 g	Matrix	Solid
% Moisture	5.0	Dilution	NA
Dry Weight Extracted	10.3 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 14:43

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	15.0	—	0.97	2,3,7,8-TCDF-13C	2.00	52
Total TCDF	53.0	—	0.97	2,3,7,8-TCDD-13C	2.00	59
				1,2,3,7,8-PeCDF-13C	2.00	57
2,3,7,8-TCDD	ND	—	0.97	2,3,4,7,8-PeCDF-13C	2.00	55
Total TCDD	2.1	—	0.97	1,2,3,7,8-PeCDD-13C	2.00	64
				1,2,3,4,7,8-HxCDF-13C	2.00	47
1,2,3,7,8-PeCDF	13.0	—	4.90	1,2,3,6,7,8-HxCDF-13C	2.00	49
2,3,4,7,8-PeCDF	9.8	—	4.90	2,3,4,6,7,8-HxCDF-13C	2.00	49
Total PeCDF	34.0	—	4.90	1,2,3,7,8,9-HxCDF-13C	2.00	50
				1,2,3,4,7,8-HxCDD-13C	2.00	51
1,2,3,7,8-PeCDD	ND	—	4.90	1,2,3,6,7,8-HxCDD-13C	2.00	45
Total PeCDD	ND	—	4.90	1,2,3,4,6,7,8-HpCDF-13C	2.00	41
				1,2,3,4,7,8,9-HpCDF-13C	2.00	46
1,2,3,4,7,8-HxCDF	23.0	—	4.90	1,2,3,4,6,7,8-HpCDD-13C	2.00	48
1,2,3,6,7,8-HxCDF	9.2	—	4.90	OCDD-13C	4.00	36
2,3,4,6,7,8-HxCDF	ND	—	4.90			
1,2,3,7,8,9-HxCDF	5.6	—	4.90	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	49.0	—	4.90	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	4.90	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	ND	—	4.90			
1,2,3,7,8,9-HxCDD	ND	—	4.90			
Total HxCDD	22.0	—	4.90			
1,2,3,4,6,7,8-HpCDF	24.0	—	4.90	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	13.0	—	4.90	Equivalence: 17 ng/Kg		
Total HpCDF	52.0	—	4.90	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	72.0	—	4.90			
Total HpCDD	150.0	—	4.90			
OCDF	55.0	—	9.70			
OCDD	5100.0	—	9.70			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	43/44A		
Lab Sample ID	60127664005		
Filename	U120913A_08		
Injected By	SMT		
Total Amount Extracted	11.2 g	Matrix	Solid
% Moisture	2.7	Dilution	NA
Dry Weight Extracted	10.9 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 15:35

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	4.0	—	0.92	2,3,7,8-TCDF-13C	2.00	46
Total TCDF	7.2	—	0.92	2,3,7,8-TCDD-13C	2.00	53
				1,2,3,7,8-PeCDF-13C	2.00	53
2,3,7,8-TCDD	ND	—	0.92	2,3,4,7,8-PeCDF-13C	2.00	55
Total TCDD	ND	—	0.92	1,2,3,7,8-PeCDD-13C	2.00	64
				1,2,3,4,7,8-HxCDF-13C	2.00	45
1,2,3,7,8-PeCDF	ND	—	4.60	1,2,3,6,7,8-HxCDF-13C	2.00	47
2,3,4,7,8-PeCDF	ND	—	4.60	2,3,4,6,7,8-HxCDF-13C	2.00	46
Total PeCDF	ND	—	4.60	1,2,3,7,8,9-HxCDF-13C	2.00	48
				1,2,3,4,7,8-HxCDD-13C	2.00	48
1,2,3,7,8-PeCDD	ND	—	4.60	1,2,3,6,7,8-HxCDD-13C	2.00	43
Total PeCDD	ND	—	4.60	1,2,3,4,6,7,8-HpCDF-13C	2.00	41
				1,2,3,4,7,8,9-HpCDF-13C	2.00	44
1,2,3,4,7,8-HxCDF	7.4	—	4.60	1,2,3,4,6,7,8-HpCDD-13C	2.00	46
1,2,3,6,7,8-HxCDF	ND	—	4.60	OCDD-13C	4.00	36
2,3,4,6,7,8-HxCDF	ND	—	4.60			
1,2,3,7,8,9-HxCDF	ND	—	4.60	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	13.0	—	4.60	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	4.60	2,3,7,8-TCDD-37Cl4	0.20	75
1,2,3,6,7,8-HxCDD	ND	—	4.60			
1,2,3,7,8,9-HxCDD	ND	—	4.60			
Total HxCDD	10.0	—	4.60			
1,2,3,4,6,7,8-HpCDF	9.2	—	4.60	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	4.60	Equivalence: 3.0 ng/Kg		
Total HpCDF	17.0	—	4.60	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	35.0	—	4.60			
Total HpCDD	74.0	—	4.60			
OCDF	20.0	—	9.20			
OCDD	1400.0	—	9.20			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

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Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	49/50A		
Lab Sample ID	60127664006		
Filename	U120913A_09		
Injected By	SMT		
Total Amount Extracted	10.4 g	Matrix	Solid
% Moisture	4.4	Dilution	NA
Dry Weight Extracted	9.94 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 16:21

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.9	—	1.0	2,3,7,8-TCDF-13C	2.00	30
Total TCDF	3.2	—	1.0	2,3,7,8-TCDD-13C	2.00	39
				1,2,3,7,8-PeCDF-13C	2.00	44
2,3,7,8-TCDD	ND	—	1.0	2,3,4,7,8-PeCDF-13C	2.00	45
Total TCDD	ND	—	1.0	1,2,3,7,8-PeCDD-13C	2.00	53
				1,2,3,4,7,8-HxCDF-13C	2.00	41
1,2,3,7,8-PeCDF	ND	—	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	43
2,3,4,7,8-PeCDF	ND	—	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	42
Total PeCDF	ND	—	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	44
				1,2,3,4,7,8-HxCDD-13C	2.00	43
1,2,3,7,8-PeCDD	ND	—	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	39
Total PeCDD	ND	—	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	38
				1,2,3,4,7,8,9-HpCDF-13C	2.00	43
1,2,3,4,7,8-HxCDF	ND	—	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	43
1,2,3,6,7,8-HxCDF	ND	—	5.0	OCDD-13C	4.00	34
2,3,4,6,7,8-HxCDF	ND	—	5.0			
1,2,3,7,8,9-HxCDF	ND	—	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	5.0	2,3,7,8-TCDD-37Cl4	0.20	60
1,2,3,6,7,8-HxCDD	ND	—	5.0			
1,2,3,7,8,9-HxCDD	ND	—	5.0			
Total HxCDD	ND	—	5.0			
1,2,3,4,6,7,8-HpCDF	ND	—	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	5.0	Equivalence: 0.93 ng/Kg		
Total HpCDF	ND	—	5.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	16.0	—	5.0			
Total HpCDD	34.0	—	5.0			
OCDF	ND	—	10.0			
OCDD	580.0	—	10.0			

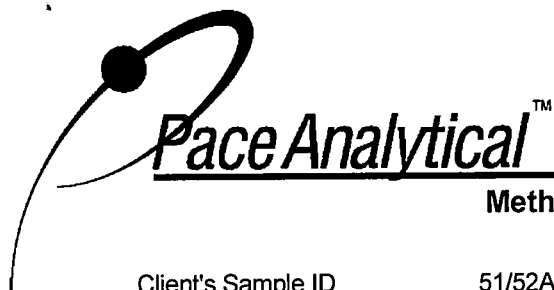
Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	51/52A		
Lab Sample ID	60127664007		
Filename	U120913A_10		
Injected By	SMT		
Total Amount Extracted	5.50 g	Matrix	Solid
% Moisture	3.4	Dilution	NA
Dry Weight Extracted	5.31 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 17:09

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.0	—	1.9	2,3,7,8-TCDF-13C	2.00	53
Total TCDF	2.0	—	1.9	2,3,7,8-TCDD-13C	2.00	59
				1,2,3,7,8-PeCDF-13C	2.00	56
2,3,7,8-TCDD	ND	—	1.9	2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	—	1.9	1,2,3,7,8-PeCDD-13C	2.00	63
				1,2,3,4,7,8-HxCDF-13C	2.00	42
1,2,3,7,8-PeCDF	ND	—	9.4	1,2,3,6,7,8-HxCDF-13C	2.00	44
2,3,4,7,8-PeCDF	ND	—	9.4	2,3,4,6,7,8-HxCDF-13C	2.00	42
Total PeCDF	ND	—	9.4	1,2,3,7,8,9-HxCDF-13C	2.00	50
				1,2,3,4,7,8-HxCDD-13C	2.00	44
1,2,3,7,8-PeCDD	ND	—	9.4	1,2,3,6,7,8-HxCDD-13C	2.00	38
Total PeCDD	ND	—	9.4	1,2,3,4,6,7,8-HpCDF-13C	2.00	31
				1,2,3,4,7,8,9-HpCDF-13C	2.00	40
1,2,3,4,7,8-HxCDF	ND	—	9.4	1,2,3,4,6,7,8-HpCDD-13C	2.00	38
1,2,3,6,7,8-HxCDF	ND	—	9.4	OCDD-13C	4.00	27
2,3,4,6,7,8-HxCDF	ND	—	9.4			
1,2,3,7,8,9-HxCDF	ND	—	9.4	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	9.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	9.4	2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	ND	—	9.4			
1,2,3,7,8,9-HxCDD	ND	—	9.4			
Total HxCDD	ND	—	9.4			
1,2,3,4,6,7,8-HpCDF	ND	—	9.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	9.4	Equivalence: 16 ng/Kg		
Total HpCDF	ND	—	9.4	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	43.0	—	9.4			
Total HpCDD	100.0	—	9.4			
OCDF	ND	—	19.0			
OCDD	15000.0	—	19.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

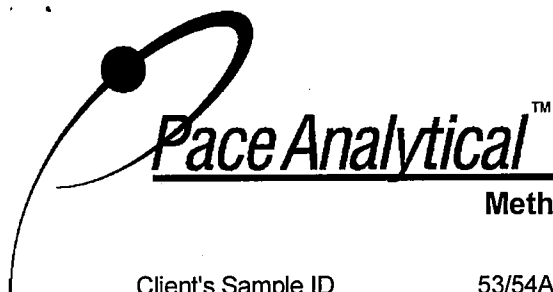
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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID 53/54A
Lab Sample ID 60127664008
Filename U120913A_11
Injected By SMT
Total Amount Extracted 2.00 g
% Moisture 2.3
Dry Weight Extracted 1.95 g
ICAL ID U120910
CCal Filename(s) U120912B_17
Method Blank ID BLANK-33852

Matrix Solid
Dilution NA
Collected 08/17/2012
Received 08/30/2012 10:05
Extracted 09/10/2012 17:00
Analyzed 09/13/2012 17:57

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	26	—	5.1	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	45	—	5.1	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	—	5.1	2,3,4,7,8-PeCDF-13C	2.00	81
Total TCDD	ND	—	5.1	1,2,3,7,8-PeCDD-13C	2.00	92
				1,2,3,4,7,8-HxCDF-13C	2.00	75
1,2,3,7,8-PeCDF	ND	—	26.0	1,2,3,6,7,8-HxCDF-13C	2.00	79
2,3,4,7,8-PeCDF	ND	—	26.0	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	—	26.0	1,2,3,7,8,9-HxCDF-13C	2.00	80
				1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,7,8-PeCDD	ND	—	26.0	1,2,3,6,7,8-HxCDD-13C	2.00	72
Total PeCDD	ND	—	26.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,7,8-HxCDF	44	—	26.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	79
1,2,3,6,7,8-HxCDF	ND	—	26.0	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	ND	—	26.0			
1,2,3,7,8,9-HxCDF	ND	—	26.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	44	—	26.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	26.0	2,3,7,8-TCDD-37Cl4	0.20	73
1,2,3,6,7,8-HxCDD	ND	—	26.0			
1,2,3,7,8,9-HxCDD	ND	—	26.0			
Total HxCDD	ND	—	26.0			
1,2,3,4,6,7,8-HpCDF	57	—	26.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	26	—	26.0	Equivalence: 16 ng/Kg		
Total HpCDF	110	—	26.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	61	—	26.0			
Total HpCDD	130	—	26.0			
OCDF	130	—	51.0			
OCDD	7000	—	51.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

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Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID 55/56A
Lab Sample ID 60127664009
Filename U120913A_12
Injected By SMT
Total Amount Extracted 5.20 g
% Moisture 3.9
Dry Weight Extracted 5.00 g
ICAL ID U120910
CCal Filename(s) U120912B_17
Method Blank ID BLANK-33852

Matrix Solid
Dilution NA
Collected 08/17/2012
Received 08/30/2012 10:05
Extracted 09/10/2012 17:00
Analyzed 09/13/2012 18:45

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	—	2.0	2,3,7,8-TCDF-13C	2.00	45
Total TCDF	ND	—	2.0	2,3,7,8-TCDD-13C	2.00	53
				1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	ND	—	2.0	2,3,4,7,8-PeCDF-13C	2.00	64
Total TCDD	ND	—	2.0	1,2,3,7,8-PeCDD-13C	2.00	71
				1,2,3,4,7,8-HxCDF-13C	2.00	48
1,2,3,7,8-PeCDF	ND	—	10.0	1,2,3,6,7,8-HxCDF-13C	2.00	50
2,3,4,7,8-PeCDF	ND	—	10.0	2,3,4,6,7,8-HxCDF-13C	2.00	50
Total PeCDF	ND	—	10.0	1,2,3,7,8,9-HxCDF-13C	2.00	57
				1,2,3,4,7,8-HxCDD-13C	2.00	50
1,2,3,7,8-PeCDD	ND	—	10.0	1,2,3,6,7,8-HxCDD-13C	2.00	45
Total PeCDD	ND	—	10.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	37
				1,2,3,4,7,8,9-HpCDF-13C	2.00	48
1,2,3,4,7,8-HxCDF	ND	—	10.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	44
1,2,3,6,7,8-HxCDF	ND	—	10.0	OCDD-13C	4.00	32
2,3,4,6,7,8-HxCDF	ND	—	10.0			
1,2,3,7,8,9-HxCDF	ND	—	10.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	—	10.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	10.0	2,3,7,8-TCDD-37Cl4	0.20	59
1,2,3,6,7,8-HxCDD	ND	—	10.0			
1,2,3,7,8,9-HxCDD	ND	—	10.0			
Total HxCDD	ND	—	10.0			
1,2,3,4,6,7,8-HpCDF	ND	—	10.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	10.0	Equivalence: 14 ng/Kg		
Total HpCDF	ND	—	10.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	37	—	10.0			
Total HpCDD	81	—	10.0			
OCDF	ND	—	20.0			
OCDD	14000	—	20.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

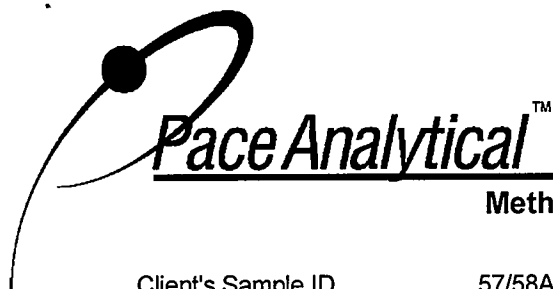
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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Kansas

Client's Sample ID	57/58A		
Lab Sample ID	60127664010		
Filename	U120913A_13		
Injected By	SMT		
Total Amount Extracted	5.00 g	Matrix	Solid
% Moisture	2.1	Dilution	NA
Dry Weight Extracted	4.89 g	Collected	08/17/2012
ICAL ID	U120910	Received	08/30/2012 10:05
CCal Filename(s)	U120912B_17	Extracted	09/10/2012 17:00
Method Blank ID	BLANK-33852	Analyzed	09/13/2012 19:33

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	13	—	2.0	2,3,7,8-TCDF-13C	2.00	65
Total TCDF	25	—	2.0	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	—	2.0	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	ND	—	2.0	1,2,3,7,8-PeCDD-13C	2.00	84
				1,2,3,4,7,8-HxCDF-13C	2.00	62
1,2,3,7,8-PeCDF	10	—	10.0	1,2,3,6,7,8-HxCDF-13C	2.00	65
2,3,4,7,8-PeCDF	ND	—	10.0	2,3,4,6,7,8-HxCDF-13C	2.00	64
Total PeCDF	10	—	10.0	1,2,3,7,8,9-HxCDF-13C	2.00	66
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	—	10.0	1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	ND	—	10.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	53
				1,2,3,4,7,8,9-HpCDF-13C	2.00	61
1,2,3,4,7,8-HxCDF	17	—	10.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	ND	—	10.0	OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	ND	—	10.0			
1,2,3,7,8,9-HxCDF	ND	—	10.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	17	—	10.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	—	10.0	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	ND	—	10.0			
1,2,3,7,8,9-HxCDD	ND	—	10.0			
Total HxCDD	ND	—	10.0			
1,2,3,4,6,7,8-HpCDF	18	—	10.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	—	10.0	Equivalence: 12 ng/Kg		
Total HpCDF	18	—	10.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	28	—	10.0			
Total HpCDD	63	—	10.0			
OCDF	41	—	20.0			
OCDD	8100	—	20.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-33852	Matrix	Solid
Filename	U120912B_09	Dilution	NA
Total Amount Extracted	10.3 g	Extracted	09/10/2012 17:00
ICAL ID	U120910	Analyzed	09/13/2012 02:36
CCal Filename(s)	U120912B_01	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	---	0.97	2,3,7,8-TCDF-13C	2.00	38
Total TCDF	ND	---	0.97	2,3,7,8-TCDD-13C	2.00	49
				1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	ND	---	0.97	2,3,4,7,8-PeCDF-13C	2.00	66
Total TCDD	ND	---	0.97	1,2,3,7,8-PeCDD-13C	2.00	76
				1,2,3,4,7,8-HxCDF-13C	2.00	64
1,2,3,7,8-PeCDF	ND	---	4.90	1,2,3,6,7,8-HxCDF-13C	2.00	68
2,3,4,7,8-PeCDF	ND	---	4.90	2,3,4,6,7,8-HxCDF-13C	2.00	72
Total PeCDF	ND	---	4.90	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	ND	---	4.90	1,2,3,6,7,8-HxCDD-13C	2.00	65
Total PeCDD	ND	---	4.90	1,2,3,4,6,7,8-HpCDF-13C	2.00	64
				1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,7,8-HxCDF	ND	---	4.90	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	ND	---	4.90	OCDD-13C	4.00	61
2,3,4,6,7,8-HxCDF	ND	---	4.90			
1,2,3,7,8,9-HxCDF	ND	---	4.90	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	---	4.90	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	---	4.90	2,3,7,8-TCDD-37Cl4	0.20	49
1,2,3,6,7,8-HxCDD	ND	---	4.90			
1,2,3,7,8,9-HxCDD	ND	---	4.90			
Total HxCDD	ND	---	4.90			
1,2,3,4,6,7,8-HpCDF	ND	---	4.90	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	---	4.90	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	---	4.90	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	---	4.90			
Total HpCDD	ND	---	4.90			
OCDF	ND	---	9.70			
OCDD	ND	---	9.70			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

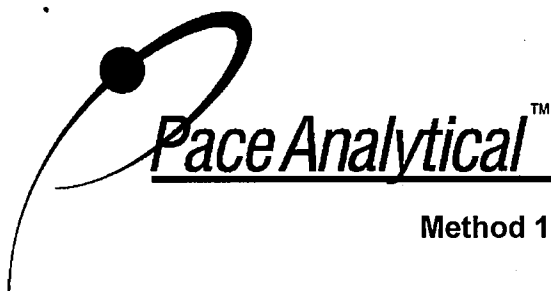
RL = Reporting Limit

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-33853	Matrix	Solid
Filename	U120912B_04	Dilution	NA
Total Amount Extracted	10.1 g	Extracted	09/10/2012 17:00
ICAL ID	U120910	Analyzed	09/12/2012 22:37
CCal Filename	U120912B_01	Injected By	SMT
Method Blank ID	BLANK-33852		

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.8	7.5	15.8	98
2,3,7,8-TCDD	10	8.5	6.7	15.8	85
1,2,3,7,8-PeCDF	50	51	40.0	67.0	101
2,3,4,7,8-PeCDF	50	48	34.0	80.0	96
1,2,3,7,8-PeCDD	50	44	35.0	71.0	88
1,2,3,4,7,8-HxCDF	50	52	36.0	67.0	104
1,2,3,6,7,8-HxCDF	50	47	42.0	65.0	95
2,3,4,6,7,8-HxCDF	50	48	35.0	78.0	97
1,2,3,7,8,9-HxCDF	50	52	39.0	65.0	104
1,2,3,4,7,8-HxCDD	50	48	35.0	82.0	97
1,2,3,6,7,8-HxCDD	50	52	38.0	67.0	104
1,2,3,7,8,9-HxCDD	50	52	32.0	81.0	104
1,2,3,4,6,7,8-HpCDF	50	52	41.0	61.0	104
1,2,3,4,7,8,9-HpCDF	50	46	39.0	69.0	93
1,2,3,4,6,7,8-HpCDD	50	45	35.0	70.0	91
OCDF	100	110	63.0	170.0	108
OCDD	100	100	78.0	144.0	101
2,3,7,8-TCDD-37Cl4	10	6.1	3.1	19.1	61
2,3,7,8-TCDF-13C	100	46	22.0	152.0	46
2,3,7,8-TCDD-13C	100	58	20.0	175.0	58
1,2,3,7,8-PeCDF-13C	100	64	21.0	192.0	64
2,3,4,7,8-PeCDF-13C	100	68	13.0	328.0	68
1,2,3,7,8-PeCDD-13C	100	78	21.0	227.0	78
1,2,3,4,7,8-HxCDF-13C	100	61	19.0	202.0	61
1,2,3,6,7,8-HxCDF-13C	100	68	21.0	159.0	68
2,3,4,6,7,8-HxCDF-13C	100	71	22.0	176.0	71
1,2,3,7,8,9-HxCDF-13C	100	71	17.0	205.0	71
1,2,3,4,7,8-HxCDD-13C	100	69	21.0	193.0	69
1,2,3,6,7,8-HxCDD-13C	100	63	25.0	163.0	63
1,2,3,4,6,7,8-HpCDF-13C	100	61	21.0	158.0	61
1,2,3,4,7,8,9-HpCDF-13C	100	75	20.0	186.0	75
1,2,3,4,6,7,8-HpCDD-13C	100	73	26.0	166.0	73
OCDD-13C	200	120	26.0	397.0	61

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Report No.....10203966_1613B

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Account

PSR1 -A

Project

582474

Workorder#60127664 Workorder Name:REL1-11-11 B-3

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582474_r01_08_ProjectBottleReview	Ana-Lab Project P:582474 Project Bottle Review Report	7
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582474_r10_05_ProjectQC	Ana-Lab Project P:582474 C:PSR1 Project Quality Control Groups	2
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NELAP-accredited #T104704201



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Cooler Review

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Date Recvd	By
0102364016	18586	pace fedex535642318104	08/28/2012	KAT
1. Was the cooler received intact and sealed. If no, notify client.				Yes
2. Was the cooler screened following the Radiochemistry survey procedure.				Yes
2a. Was the survey result negative. If no, notify the client.				Yes
2b. Are any of the samples identified by the client as radioactive.				No
2c. If radioactive, did the client provide RAD Activity				N/A
3. Were chain of custody documents included.				Yes
4. Was the cooler temperature checked.				Yes
5. Was cooler temperature within specifications (less than or equal to 6 C).				Yes
6. Is temperature documented on the Chain of Custody.				Yes
7. Lab has resources for these services (testing capability, available personnel, and can meet requested TAT). If no, notify client.				Yes
8. Cooler Seal Attached (or Hand Delivered)				Yes
9. Other Comments				N/A
1690537132	18603	PSR1-456914066671-FEDEX	08/30/2012	CCP
1. Was the cooler received intact and sealed. If no, notify client.				Yes
2. Was the cooler screened following the Radiochemistry survey procedure.				Yes
2a. Was the survey result negative. If no, notify the client.				Yes
2b. Are any of the samples identified by the client as radioactive.				No
2c. If radioactive, did the client provide RAD Activity				N/A
3. Were chain of custody documents included.				Yes
4. Was the cooler temperature checked.				Yes
5. Was cooler temperature within specifications (less than or equal to 6 C).				Yes
6. Is temperature documented on the Chain of Custody.				Yes
7. Lab has resources for these services (testing capability, available personnel, and can meet requested TAT). If no, notify client.				Yes
8. Cooler Seal Attached (or Hand Delivered)				Yes
9. Other Comments				N/A
1690537132	18604	PSR1-986953697821-FEDRX	08/30/2012	CCP
1. Was the cooler received intact and sealed. If no, notify client.				Yes
2. Was the cooler screened following the Radiochemistry survey procedure.				Yes
2a. Was the survey result negative. If no, notify the client.				Yes
2b. Are any of the samples identified by the client as radioactive.				No

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Corporate: 2600 Dudley Road Kilgore TX 75662



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Cooler Review

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt Cooler Air Bill

2c. If radioactive, did the client provide RAD Activity

3. Were chain of custody documents included.

4. Was the cooler temperature checked.

5. Was cooler temperature within specifications (less than or equal to 6 C).

6. Is temperature documented on the Chain of Custody.

7. Lab has resources for these services (testing capability, available personnel, and can meet requested TAT). If no, notify client.

8. Cooler Seal Attached (or Hand Delivered)

9. Other Comments

Date Recvd

By

N/A

Yes

Yes

Yes

Yes

Yes

Yes

N/A

N/R: Not Reviewed

N/A: Not Applicable

* Out

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Corporate: 2600 Dudley Road Kilgore TX 75662



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Bottle Review

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18586	0102364016	pace fedex535642318104	08/28/2012	KAT

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

1145498	01	000000010145	Client supplied glass
---------	----	--------------	-----------------------

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

1145499	01	000000010145	Client supplied glass
---------	----	--------------	-----------------------

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |

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Bottle Review

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Report To

 Sherri Rosenstangle
 Pace Analytical
 9608 Loiret Blvd
 Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18586	0102364016	pace fedex535642318104	08/28/2012	KAT

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

- | | |
|---|-----|
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

1145500 01 000000010145 Client supplied glass

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

1145504 01 000000010145 Client supplied glass

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |

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Bottle Review

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18586	0102364016	pace fedex535642318104	08/28/2012	KAT

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

- | | |
|---|-----|
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

18603	1690537132	PSR1-456914066671-FEDEX	08/30/2012	CCP
-------	------------	-------------------------	------------	-----

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

1145495	01	000000010154	Client supplied glass
---------	----	--------------	-----------------------

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |

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Bottle Review

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Report To

Sherri Rosenstangle
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9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18603	1690537132	PSR1-456914066671-FEDEX	08/30/2012	CCP

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

8. Bottle Seals Attached

N/R

1145496 01 000000010154 Client supplied glass

1. Was the sample container properly labeled.

Yes

2. Was the proper sample container type received.

Yes

3. Does the bottle label indicate that proper chemical preservatives were added if required.

N/A

3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH.

N/A

3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded.

N/A

4. If the bottle was a VOC vial, was it free of headspace.

N/A

5. Was the bottle received intact.

Yes

6. Was the sample received within holding time. If no, notify the client.

Yes

7. Was the chain of custody documents completed correctly. (Ink, signed, matches container)

Yes

8. Bottle Seals Attached

N/R

1145497 01 000000010154 Client supplied glass

1. Was the sample container properly labeled.

Yes

2. Was the proper sample container type received.

Yes

3. Does the bottle label indicate that proper chemical preservatives were added if required.

N/A

3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH.

N/A

3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded.

N/A

4. If the bottle was a VOC vial, was it free of headspace.

N/A

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Report To

 Sherri Rosenstangle
 Pace Analytical
 9608 Loiret Blvd
 Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18603	1690537132	PSR1-456914066671-FEDEX	08/30/2012	CCP

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

- | | |
|---|-----|
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

18604	1690537132	PSR1-986953697821-FEDRX	08/30/2012	CCP
-------	------------	-------------------------	------------	-----

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

1145501	01	000000010154	Client supplied glass
---------	----	--------------	-----------------------

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

1145502	01	000000010154	Client supplied glass
---------	----	--------------	-----------------------

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Corporate: 2600 Dudley Road Kilgore TX 75662



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Bottle Review

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18604	1690537132	PSR1-986953697821-FEDRX	08/30/2012	CCP

Sample	Bottle	Barcode	Description
--------	--------	---------	-------------

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |
| 7. Was the chain of custody documents completed correctly. (Ink, signed, matches container) | Yes |
| 8. Bottle Seals Attached | N/R |

1145503 01 000000010154 Client supplied glass

- | | |
|---|-----|
| 1. Was the sample container properly labeled. | Yes |
| 2. Was the proper sample container type received. | Yes |
| 3. Does the bottle label indicate that proper chemical preservatives were added if required. | N/A |
| 3a. If preserved, was the sample bottle (except VOC Vials, 1005 Vials and FC bottles) at the proper pH. | N/A |
| 3b. If no, was the sample's pH adjusted (except VOC Vials, 1005 Vials & FC Bottles) and the changes in pH recorded. | N/A |
| 4. If the bottle was a VOC vial, was it free of headspace. | N/A |
| 5. Was the bottle received intact. | Yes |
| 6. Was the sample received within holding time. If no, notify the client. | Yes |

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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663



Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com
Employee Owned Integrity Caring

LELAP-accredited #02008
Continual Improvement

Bottle Review

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Receipt	Cooler	Air Bill	Received	By
18604	1690537132	PSR1-986953697821-FEDRX	08/30/2012	CCP
Sample	Bottle	Barcode	Description	
7. Was the chain of custody documents completed correctly. (Ink, signed, matches container)				Yes
8. Bottle Seals Attached				N/R
N/R: Not Reviewed				N/A: Not Applicable
				* Out

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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

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Employee Owned

Integrity

Caring

Continual Improvement

Sample Cross Reference

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Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Sample	Sample ID	Taken	Time	Received
1145495	31/32A 60127664001	08/17/2012	00:00:00	08/28/2012

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL <== Derived from 01 (5 grams)

Bottle 03 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL <== Derived from 01 (5 grams)

Bottle 04 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL <== Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/14/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145496	33/34A 60127664002	08/17/2012	00:00:00	08/28/2012
---------	--------------------	------------	----------	------------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL <== Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/14/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145497	35/36A 60127664003	08/17/2012	00:00:00	08/28/2012
---------	--------------------	------------	----------	------------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL <== Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/14/2012
SM2540 G, 20th /MOD	01	491430	09/12/2012	491430	09/12/2012

1145498	41/42A 60127664004	08/17/2012	00:00:00	08/28/2012
---------	--------------------	------------	----------	------------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL <== Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/14/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145499	43/44A 60127664005	08/17/2012	00:00:00	08/28/2012
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Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



Pace Pk. 2600 Dudley Rd. Kilgore, TX 75662



Sample Cross Reference

Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Sample	Sample ID	Taken	Time	Received
--------	-----------	-------	------	----------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL ← Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/15/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145500	49/50A 60127664006	08/17/2012	00:00:00	08/28/2012
---------	--------------------	------------	----------	------------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL ← Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/14/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145501	51/52A 60127664007	08/17/2012	00:00:00	08/28/2012
---------	--------------------	------------	----------	------------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL ← Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/15/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145502	53/54A 60127664008	08/17/2012	00:00:00	08/28/2012
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Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL ← Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/15/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145503	55/56A 60127664009	08/17/2012	00:00:00	08/28/2012
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Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL ← Derived from 01 (5 grams)

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



Pace Analytical



Sample Cross Reference

Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Sample	Sample ID	Taken	Time	Received
1145503	55/56A 60127664009	08/17/2012	00:00:00	08/28/2012

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL \Leftarrow Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/15/2012
SM2540 G, 20th /MOD	01	490931	09/07/2012	490931	09/07/2012

1145504	57/58A 60127664010	08/17/2012	00:00:00	08/28/2012
---------	--------------------	------------	----------	------------

Bottle 01 Client supplied glass

Bottle 02 Prepared Bottle: 2 mL Glass vial (Batch 490902) Volume: 50.00000 mL \Leftarrow Derived from 01 (5 grams)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 314.0	02	490902	09/10/2012	491854	09/14/2012
SM2540 G, 20th /MOD	01	491430	09/12/2012	491430	09/12/2012





Holding Time Compliance

Printed 09/17/2012 Page 1 of 1

Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Project

582474

Name	Method	Taken:	Received	Analyzed	Hold	Elapsed
1145495						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/14/12 10:40	28.00	28.00
				9/10/12 9:20	180.00	24.00
1145496						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/14/12 13:09	28.00	28.00
				9/10/12 9:20	180.00	24.00
1145497						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/14/12 13:46	28.00	28.00
				9/10/12 9:20	180.00	24.00
1145498						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/14/12 14:23	28.00	28.00
				9/10/12 9:20	180.00	24.00
1145499						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/15/12 10:56	28.00	29.00 *
				9/10/12 9:20	180.00	24.00
1145500						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/14/12 15:38	28.00	28.00
				9/10/12 9:20	180.00	24.00
1145501						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/15/12 10:19	28.00	29.00 *
				9/10/12 9:20	180.00	24.00
1145502						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/15/12 11:33	28.00	29.00 *
				9/10/12 9:20	180.00	24.00
1145503						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/15/12 12:10	28.00	29.00 *
				9/10/12 9:20	180.00	24.00
1145504						
Perchlorate (water extractable)	EPA 314.0	8/17/12 0:00	08/28/2012			
Water Extract-Ion Chromatography	SW-846 9056			9/14/12 18:07	28.00	28.00
				9/10/12 9:20	180.00	24.00

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Corporate: 2600 Dudley Road Kilgore TX 75662



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Results

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Client: PSR1

Project: 582474

Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Workorder#60127664 Workorder Name:REL1-11-11

Account

PSR1-A

Project

582474

Results

Parameter	Results	Units	RL	Flags	CAS	Bottle
1145495 31/32A 60127664001	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
Prepared: 490902 09/10/2012 09:20:47						
EPA 314.0	Analyzed: WJY 09/14/2012	10:40:58	QCgroup	491854		
z Perchlorate (water extractable)	0.680 *	mg/kg	0.0421	7790-98-9	02	
* Dry Weight Basis						
Prepared: 490931 09/07/2012 12:40:04						
SM2540 G, 20th /MOD	Analyzed: MLC 09/07/2012	12:40:04	QCgroup	490931		
N Total Solids for Dry Wt	95.0	%	0.010		01	
1145496 33/34A 60127664002	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
Prepared: 490902 09/10/2012 09:20:47						
EPA 314.0	Analyzed: WJY 09/14/2012	13:09:37	QCgroup	491854		
z Perchlorate (water extractable)	0.355 *	mg/kg	0.0406	7790-98-9	02	
* Dry Weight Basis						
Prepared: 490931 09/07/2012 12:40:04						
SM2540 G, 20th /MOD	Analyzed: MLC 09/07/2012	12:40:04	QCgroup	490931		
N Total Solids for Dry Wt	98.6	%	0.010		01	
1145497 35/36A 60127664003	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
Prepared: 490902 09/10/2012 09:20:47						
EPA 314.0	Analyzed: WJY 09/14/2012	13:46:46	QCgroup	491854		
z Perchlorate (water extractable)	0.417 *	mg/kg	0.0412	7790-98-9	02	
* Dry Weight Basis						
Prepared: 491430 09/12/2012 14:42:59						
SM2540 G, 20th /MOD	Analyzed: MLC 09/12/2012	14:42:59	QCgroup	491430		
N Total Solids for Dry Wt	97.1	%	0.010		01	
1145498 41/42A 60127664004	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
Prepared: 490902 09/10/2012 09:20:47						

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

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NELAP-accredited #T104704201



Pace Analytical Page 1 of 1

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Employee Owned Integrity Caring Continual Improvement

Results

Printed: 09/17/2012

Page 2 of 7

Client: PSR1

Project: 582474

Results

Parameter	Results	Units	RL	Flags	CAS	Bottle
1145498 41/42A 60127664004	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
EPA 314.0	Prepared: 490931	09/07/2012	12:40:04			
z Perchlorate (water extractable)	0.566 *	Analyzed: WJY 09/14/2012	14:23:55	QCgroup	491854	
* Dry Weight Basis		mg/kg	0.0417	7790-98-9	02	
SM2540 G, 20th /MOD	Prepared: 490931	09/07/2012	12:40:04	QCgroup	490931	
N Total Solids for Dry Wt	96.0	%	0.010		01	
1145499 43/44A 60127664005	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
EPA 314.0	Prepared: 490902	09/10/2012	09:20:47			
z Perchlorate (water extractable)	1.15 *	Analyzed: WJY 09/15/2012	10:56:08	QCgroup	491854	
* Dry Weight Basis		mg/kg	0.203	H 7790-98-9	02	
SM2540 G, 20th /MOD	Prepared: 490931	09/07/2012	12:40:04	QCgroup	490931	
N Total Solids for Dry Wt	98.5	%	0.010		01	
1145500 49/50A 60127664006	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
EPA 314.0	Prepared: 490902	09/10/2012	09:20:47			
z Perchlorate (water extractable)	0.115 *	Analyzed: WJY 09/14/2012	15:38:15	QCgroup	491854	
* Dry Weight Basis		mg/kg	0.0421	7790-98-9	02	
SM2540 G, 20th /MOD	Prepared: 490931	09/07/2012	12:40:04	QCgroup	490931	
N Total Solids for Dry Wt	94.9	%	0.010		01	
1145501 51/52A 60127664007	Received: 08/28/2012					
Solid	Collected by: Client	Affiliation: Pace Analytical	08/17/2012	00:00:00		
EPA 314.0	Prepared: 490902	09/10/2012	09:20:47			
z Perchlorate (water extractable)	2.51 *	Analyzed: WJY 09/15/2012	10:19:01	QCgroup	491854	
* Dry Weight Basis		mg/kg	0.409	H 7790-98-9	02	
SM2540 G, 20th /MOD	Prepared: 490931	09/07/2012	12:40:04	QCgroup	490931	
N Total Solids for Dry Wt	97.8	%	0.010		01	

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Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663



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Employee Owned Integrity Caring Continual Improvement

Results

Client: PSR1

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Project: 582474

Results

Parameter	Results	Units	RL	Flags	CAS	Bottle
-----------	---------	-------	----	-------	-----	--------

1145502 53/54A 60127664008

Received: 08/28/2012

Solid

Collected by: Client

Affiliation: Pace Analytical

08/17/2012 00:00:00

Prepared:

490902

09/10/2012

09:20:47

EPA 314.0

Analyzed: WJY 09/15/2012 11:33:18 QCgroup 491854

z Perchlorate (water extractable)

3.25 *

mg/kg

0.412

H

7790-98-9

02

* Dry Weight Basis

Prepared:

490931

09/07/2012

12:40:04

SM2540 G, 20th /MOD

Analyzed: MLC 09/07/2012 12:40:04 QCgroup 490931

N Total Solids for Dry Wt

97.2

%

0.010

01

1145503 55/56A 60127664009

Received: 08/28/2012

Solid

Collected by: Client

Affiliation: Pace Analytical

08/17/2012 00:00:00

Prepared:

490902

09/10/2012

09:20:47

EPA 314.0

Analyzed: WJY 09/15/2012 12:10:29 QCgroup 491854

z Perchlorate (water extractable)

1.80 *

mg/kg

0.211

H

7790-98-9

02

* Dry Weight Basis

Prepared:

490931

09/07/2012

12:40:04

SM2540 G, 20th /MOD

Analyzed: MLC 09/07/2012 12:40:04 QCgroup 490931

N Total Solids for Dry Wt

94.6

%

0.010

01

1145504 57/58A 60127664010

Received: 08/28/2012

Solid

Collected by: Client

Affiliation: Pace Analytical

08/17/2012 00:00:00

Prepared:

490902

09/10/2012

09:20:47

EPA 314.0

Analyzed: WJY 09/14/2012 18:07:07 QCgroup 491854

z Perchlorate (water extractable)

0.503 *

mg/kg

0.0412

7790-98-9

02

* Dry Weight Basis

Prepared:

491430

09/12/2012

14:42:59

SM2540 G, 20th /MOD

Analyzed: MLC 09/12/2012 14:42:59 QCgroup 491430

N Total Solids for Dry Wt

97.1

%

0.010

01

Sample Preparation

1145495 31/32A 60127664001

Received: 08/28/2012

Prepared:

08/30/2012

00:00:00

Bottle Temperature on Receipt

1

Analyzed: CCP 08/30/2012 00:00:00 QCgroup

degrees

01

Prepared:

09/17/2012

15:00:22

Calculation

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



Page 3 of 8



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Employee Owned

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Continual Improvement

Results

Printed: 09/17/2012

Page 4 of 7

Client: PSR1

Project: 582474

Sample Preparation

1145495 31/32A 60127664001

Received: 08/28/2012

Calculation

As Received to Dry Weight Basis

Calculated

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Prepared:

490902

09/10/2012

09:20:47

SW-846 9056

Analyzed: LPI 09/10/2012 09:20:47 QCgroup

490902

N

Water Extract-Ion Chromatography

50/5

grams

01

1145496 33/34A 60127664002

Received: 08/28/2012

Prepared:

08/30/2012

00:00:00

Bottle Temperature on Receipt

1

Analyzed: CCP 08/30/2012 00:00:00 QCgroup

01

Prepared:

09/17/2012

15:00:22

Calculation

As Received to Dry Weight Basis

Calculated

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Prepared:

490902

09/10/2012

09:20:47

SW-846 9056

Analyzed: LPI 09/10/2012 09:20:47 QCgroup

490902

N

Water Extract-Ion Chromatography

50/5

grams

01

1145497 35/36A 60127664003

Received: 08/28/2012

Prepared:

08/30/2012

00:00:00

Bottle Temperature on Receipt

1

Analyzed: CCP 08/30/2012 00:00:00 QCgroup

01

Prepared:

09/17/2012

15:00:22

Calculation

As Received to Dry Weight Basis

Calculated

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Prepared:

490902

09/10/2012

09:20:47

SW-846 9056

Analyzed: LPI 09/10/2012 09:20:47 QCgroup

490902

N

Water Extract-Ion Chromatography

50/5

grams

01

1145498 41/42A 60127664004

Received: 08/28/2012

Prepared:

08/28/2012

00:00:00

Bottle Temperature on Receipt

1

Analyzed: KAT 08/28/2012 00:00:00 QCgroup

01

Prepared:

09/17/2012

15:00:22

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



Page 20 of 80 Page 66 of 80



Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

Employee Owned Integrity Caring Continual Improvement

Results

Client: PSR1
Sample Preparation

Printed: 09/17/2012

Page 5 of 7

Project: 582474

1145498 41/42A 60127664004

Received: 08/28/2012

Calculation

As Received to Dry Weight Basis

Calculated

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Prepared:

490902

09/10/2012

09:20:47

SW-846 9056

Analyzed: LPI 09/10/2012 09:20:47 QCgroup 490902

N Water Extract-Ion Chromatography

50/5

grams

01

1145499 43/44A 60127664005

Received: 08/28/2012

Prepared:

08/28/2012

00:00:00

Bottle Temperature on Receipt

3

Analyzed: KAT 08/28/2012 00:00:00 QCgroup
degrees 01

Prepared:

09/17/2012

15:00:22

Calculation

As Received to Dry Weight Basis

Calculated

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Prepared:

490902

09/10/2012

09:20:47

SW-846 9056

Analyzed: LPI 09/10/2012 09:20:47 QCgroup 490902

N Water Extract-Ion Chromatography

50/5

grams

01

1145500 49/50A 60127664006

Received: 08/28/2012

Prepared:

08/28/2012

00:00:00

Bottle Temperature on Receipt

<1

Analyzed: KAT 08/28/2012 00:00:00 QCgroup
degrees 01

Prepared:

09/17/2012

15:00:22

Calculation

As Received to Dry Weight Basis

Calculated

Analyzed: CAL 09/17/2012 15:00:22 QCgroup

Prepared:

490902

09/10/2012

09:20:47

SW-846 9056

Analyzed: LPI 09/10/2012 09:20:47 QCgroup 490902

N Water Extract-Ion Chromatography

50/5

grams

01

1145501 51/52A 60127664007

Received: 08/28/2012

Prepared:

08/30/2012

00:00:00

Bottle Temperature on Receipt

3

Analyzed: CCP 08/30/2012 00:00:00 QCgroup
degrees 01

Prepared:

09/17/2012

15:00:22

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

Employee Owned Integrity Caring Continual Improvement

Results

Client: PSR1

Printed: 09/17/2012

Page 6 of 7

Sample Preparation

Project: 582474

1145501 51/52A 60127664007

Received: 08/28/2012

Calculation	As Received to Dry Weight Basis	Calculated	Analyzed: CAL 09/17/2012	15:00:22	QCgroup
	Prepared:	490902	09/10/2012	09:20:47	
SW-846 9056			Analyzed: LPI 09/10/2012	09:20:47	QCgroup 490902
N Water Extract-Ion Chromatography		50/5	grams		01

1145502 53/54A 60127664008

Received: 08/28/2012

	Prepared:	08/30/2012	00:00:00		
	Bottle Temperature on Receipt	5	Analyzed: CCP 08/30/2012	00:00:00	QCgroup 01
	Prepared:	09/17/2012	15:00:22		
Calculation	As Received to Dry Weight Basis	Calculated	Analyzed: CAL 09/17/2012	15:00:22	QCgroup
	Prepared:	490902	09/10/2012	09:20:47	
SW-846 9056			Analyzed: LPI 09/10/2012	09:20:47	QCgroup 490902
N Water Extract-Ion Chromatography		50/5	grams		01

1145503 55/56A 60127664009

Received: 08/28/2012

	Prepared:	08/30/2012	00:00:00		
	Bottle Temperature on Receipt	<1	Analyzed: CCP 08/30/2012	00:00:00	QCgroup 01
	Prepared:	09/17/2012	15:00:22		
Calculation	As Received to Dry Weight Basis	Calculated	Analyzed: CAL 09/17/2012	15:00:22	QCgroup
	Prepared:	490902	09/10/2012	09:20:47	
SW-846 9056			Analyzed: LPI 09/10/2012	09:20:47	QCgroup 490902
N Water Extract-Ion Chromatography		50/5	grams		01

1145504 57/58A 60127664010

Received: 08/28/2012

	Prepared:	08/28/2012	00:00:00		
	Bottle Temperature on Receipt	<1	Analyzed: KAT 08/28/2012	00:00:00	QCgroup 01
	Prepared:	09/17/2012	15:00:22		

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



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Employee Owned Integrity Caring Continual Improvement

Results

Printed: 09/17/2012

Page 7 of 7

Client: PSR1

Project: 582474

Sample Preparation

1145504 57/58A 60127664010

Received: 08/28/2012

Calculation		Analyzed: CAL 09/17/2012 15:00:22 QCgroup	
As Received to Dry Weight Basis		Calculated	
Prepared:		490902	09/10/2012 09:20:47
SW-846 9056		Analyzed: LPI 09/10/2012 09:20:47 QCgroup	490902
N Water Extract-Ion Chromatography	50/5	grams	01

Qualifiers:

H - Sample started outside recommended holding time

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, US Department of Agriculture Soil Import Permit S-37592, Texas Commission on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365. The Accredited column designates accreditation by N - NELAC, or z - not covered under NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC. RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

C. H. Whiteside

C. H. Whiteside, Ph.D., President



Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

LELAP-accredited #02008

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Quality Control

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Page 1 of 2

Report To

Sherri Rosenstangle
Pace Analytical
9608 Loiret Blvd
Lenexa, KS 66219

Workorder#60127664 Workorder Name:REL1-11

Account

PSR1 -A

Project

582474

491854

I

Solid

EPA 314.0

AWRL

Parameter	Reading	Known	Units	Recover%	Limits	Out	File
Perchlorate (water extractable)	0.00389	0.004	mg/kg	97.2	70.0 - 130		112805883

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Perchlorate (water extractable)	490902	0.00106	0.00080	0.004	mg/kg	112805886

CCV

Parameter	Reading	Known	Units	Recover%	Limits	Out	File
Perchlorate (water extractable)	0.111	0.100	mg/kg	111	80.0 - 120		112805899

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
Perchlorate (water extractable)	490902	0.114	0.100	mg/kg	114	80.0 - 120	112805884	

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits	LCS%	LCSD%	Units	RPD	Limit%
Perchlorate (water extractable)	490902	0.114	0.114	0.100	80.0 - 120	114	114	mg/kg	0	20.0

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Perchlorate (water extractable)	1145495	1.74		0.646	1.00	80.0 - 120	109		mg/kg		20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Perchlorate (water extractable)	1145495	1.74	1.69	0.646	1.00	80.0 - 120	109	104	mg/kg	4.69	20.0

490931

W

Solid

SM2540 G, 20th /MOD

ControlBlk

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Total Solids for Dry Wt	490931	-0.0005			grams	112786327

Duplicate

Parameter	Sample	Type	Result	Unknown	Unit	RPD	Limit%
Total Solids for Dry Wt	1145495	Duplicate	95.0	95.0	%	0	20.0
Total Solids for Dry Wt	1145496	Duplicate	98.3	98.6	%	0.305	20.0

491430

W

Solid

SM2540 G, 20th /MOD

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

Corporate: 2600 Dudley Road Kilgore TX 75662



NELAP-accredited #T104704201



Pace Page 1 of 1



Quality Control

Printed 09/17/2012

Page 2 of 2

491430 W Solid

SM2540 G, 20th /MOD

ControlBlk

Parameter	PrepSet	Reading	MDL	MOQ	Units	File
Total Solids for Dry Wt	491430	0.0001			grams	112796796

Duplicate

Parameter	Sample	Type	Result	Unknown	Unit	RPD	Limit%
Total Solids for Dry Wt	1145497	Duplicate	97.0	97.1	%	0.103	20.0
Total Solids for Dry Wt	1145504	Duplicate	97.0	97.1	%	0.103	20.0
Total Solids for Dry Wt	1147157	Duplicate	99.3	99.2	%	0.101	20.0

RPD is Relative Percent Difference: $\frac{\text{abs}(r1-r2)}{\text{mean}(r1,r2)} * 100\%$

Recover% is Recovery Percent: $\frac{\text{result}}{\text{known}} * 100\%$



Chain of Custody



Results Requested 9/17/2012

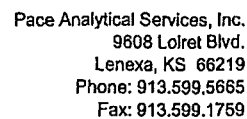
Transfers	Released By	Date/Time	Received By	Date/Time	
Page 1	<i>[Signature]</i>	8/27/12 1700	Fed Ex #5356 4231 8104	8/23/12 0920	005057 <input type="checkbox"/> CF
Page 2	<i>[Signature]</i>	8/27/12 0920	<i>[Signature]</i>		005112 <input checked="" type="checkbox"/> CF <i>0004</i> <i>50</i>
Page 3			Christi Parker Ana-Lab		003688 <input type="checkbox"/> CF
Cooler Temperature on Receipt <i>5</i> °C Custody Seal <i>Y</i> or N Received on Ice <i>Y</i> or N Samples Intact <i>Y</i> or N					

Page 1 of 1

1 of 7



582474 CoC Print Group 001 of 001



SUBOUT SAMPLES

Completed by Project Manager:

Sub out within Pace Office: _____

Containers to be sent: _____

X	Sub out outside of Pace	
	Laboratory:	Anal Lab
	Shipping Address:	2600 Dudley Rd Kilgore, TX 75663
	Containers to be sent:	10 - 4oz jars
	Pace Purchase Order Number:	SUB-619

Project Number 60127664

Project Due Date: 9/17/2012

PM Initials: SAR

Sample #	Quant	Matrix	Test-Description	Unit Price	Containers to send
002766001-010	10	soil	Perchlorates	\$1,500.00	24oz jars
			Total	\$1,500.00	

Initials of Person Placing Work: SAR

Contact in other Lab: Skeeler, Ludwig

Phone Number: 903-984-0551

Initials of Person Sending Samples: _____

Date Sent: 8/27/2012

Courier Used:

Tracking Number:



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582474 CoC Print Group 001 of 001

ORIGIN TO: INDA (013) 595-5555
SAMPLE RECEIVING
PACE ANALYTICAL SERVICES, INC.
2600 LOIRET BLVD
VENETA, PA 19381-92405
UNITED STATES US

SHIP DATE: 27 AUG 12
ACTWGT: 28.7 LB
CRD: 884637/CAPE2511
DIMS: 20x14x11 IN
BILL SENDER


TO: SAMPLE RECEIVING
ANA LABS
2600 DUDLEY ROAD
KILGORE TX 75662

DEPT. CLIENT SERVICE REF: BUS 6410

 FedEx Express 

TX# 5356 4231 8104 TUE - 28 AUG A4
0201 STANDARD OVERNIGHT

XX GGGA 75662
TX-US SHV



Part # 156148-434 RTT2 0712

Chain of Custody



ANALAB
CORP.
THE COMPLETE SERVICE LAB

Workorder: 60127664

Workorder Name:REL1-11-11 B-3

Owner Received Date: 8/24/2012 Results Requested By: 9/17/2012

Sherri Rosenstangle
Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone (913)599-5665
Fax (913)599-1759

Pace Analytical Minnesota
1700 Elm Street
Suite 200
Minneapolis, MN 55414
Phone (612)607-1700

[illegible]

Transfers	Released By	Date/Time	Received By	Date/Time	
1	<i>Debra Johnston</i>	<i>8/29/12 10:30</i>	<i>Fed Ex</i>		
2	<i>Fed Ex</i>	<i>9/20/12 09:30</i>	<i>CD</i>	<i>9/20/12 09:30</i>	
3			Christi Parker Ana-Lab		<i>Trk# 456914066671</i>
Cooler Temperature on Receipt		°C	Custody Seal (Y or N)	Received on Ice (Y or N)	Samples Intact (Y or N)

005057 ☐ CF _____
005112 ☒ CF 004
003688 ☐ CF _____

10



5 of 7

582474 CoC Print Group 001 of 001

ORIGIN ID: MYCA (612) 607-6356
SAMPLE RECEIVING
PACE ANALYTICAL SERVICES
1700 ELM STREET
MINNEAPOLIS, MN 55414
UNITED STATES US

SHIP DATE: 29AUG12
ACTWT: 23.6 LB
CAD: 0627437/CAFE2604

BILL RECIPIENT

TO CHRISTIE PARKER
ANA - LAB CORP
2600 DUBLEY ROAD
KILGORE TX 75662
(003) 084-0661
DEPT: 1003

REF: 1003 - BUS OUT

TRK# 0201 4569 1406 6671

THU - 30 AUG
STANDARD-OVERNIGHT

XX GGGA

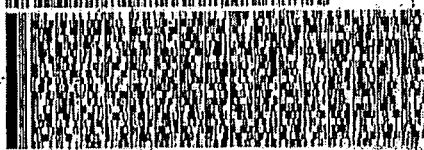
TX- US S/

75662



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582474 CoC Print Group 001 of 001

ORIGIN ID: OTNA (317) 876-6894 SAMPLE RECEIVING FACE ANALYTICAL SERVICES, INC. 7728 MOLLER ROAD INDIANAPOLIS, IN 46268 UNITED STATES US		SHIP DATE: 29AUG12 ACTING: 25.2 LB CAD: 0847692/CAFE2514 BILL THIRD PARTY	
TO ATTN: CHRISTIE PARKER ANA LAB 2600 DUDLEY R OAD KILGORE TX 75663			
INV PO		EXP	
		FedEx Express 	
TRKH 0201 9869 5369 7821		THU - 30 AUG '12 STANDARD OVERNIGHT	
XX GGGA		75663 TX-US SHV	
Pur 2 150140-434 RT2 12711			



Sample Condition Upon Receipt

Client Name: General Dynamics

Project # 00127064

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other
Tracking #: MST 798797986158 Pace Shipping Label Used? ☐ Yes ☒ No
Custody Seal on Cooler/Box Present: ☒ Yes ☐ No Seals intact: ☒ Yes ☐ No

Optional
Proj. Due Date: 9/17
Proj. Name: REL1-11-11 R3

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☒ Other ZPLC

Thermometer Used: K-191 T-194

Type of Ice: Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature: 24.0 / 1.1

Temperature should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 8-23-12 BA

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. All items that were not on ice were
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. For Dioxins/Furans and Perchlorates test.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. (2054 W6K4)
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
-Includes date/time/ID/analyses Matrix: <u>SL</u>		
All containers needing preservation have been checked,	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation,	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Pace Trip Blank lot # (if purchased):		
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:

Client Notification/Resolution: Copy COC to Client? Y / N 8-23-12 Field Data Required? Y / N

Person Contacted: Robert Guy

Date/Time: 8-23-12

Comments/Resolution:

Proceed with the analyses - Substrate Temp Issue
Per Robert, samples collected 8-17-12

Project Manager Review: SHR

Date: 8-23-12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)